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AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

DECEMBER 15, 1945



Arctostaphylos Uva-ursi

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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

VOL. LXXXII, No. 12

DECEMBER 15, 1945

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AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

MERRY CHRISTMAS!

This year the greetings of the Christmas season are truly merry, after four sad years of war. It is a joyful time for the many servicemen who have returned from overseas and resumed civilian garb. It is equally happy for their families, who can celebrate the yuletide with thankful hearts. It is somewhat less merry for the many boys still across the seas, but the assurance that war is over and peace may be enjoyed gives them reason for thankfulness. The memory of many who will never return casts a shadow of sorrow on many firesides, but the thought of their redemption of many nations from dictatorial oppression alleviates the sadness.

Though the countries of the world, and all of us, stumble a little on our road back to the peacetime way of life, yet we can be hopeful and happy that the day has arrived. The difficulties can be surmounted and the problems solved with the year-long exercise of the spirit which should mark the Christmas time.

The Christmas holiday is celebrated with a green tree. The time of peace is one of planting, and nurserymen face the year ahead as one of opportunity for them to bring beauty and fruitfulness to this land and others. They have reason to be thankful for their calling, and in this association, the editorial greetings at the yuletide are deeply grateful and warmly merry.

POSTWAR COMPETITION.

During the war years when the usual items were not available from those industries catering to military needs, many merchandising outlets, including large national mail-order houses, found nursery stock a line of merchandise which could be added profitably to the extensive list of goods sold to the public. Some concerns were astute enough to learn the proper methods of handling such perishable stock and, meeting the problems, were able annually to expand their sales of plants. Other firms, which paid less attention to customers' satisfaction, found repeat orders lacking and discarded nursery stock as merchandise too difficult to handle. It is too early to say how many such concerns will continue to

handle nursery stock when durable items such as refrigerators and washing machines again return to the catalogs, but it is safe to say that those firms which have given to our items of merchandise the thought and study they give to other items handled will continue to be a factor in the marketing of small sizes of trees and shrubs, as well as perennial plants, seeds and bulbs.

Such competition will not affect the landscape nurseryman, whose primary commodity is service to the homeowner. Nor will cash-and-carry nurseries be affected so far as concerns those customers who like to see and take home with them the merchandise they buy.

But there are many buyers of ornamental plants who will be reached by the offers of general mail-order houses, department and hardware stores, chain stores and the like, alert to the increasing demand for horticultural products.

No one will deny that the nurseryman has the inside track with the public because of his close knowledge of the merchandise he handles and the helpful advice he can give his customers. If the nurseryman goes further and emulates the competitors among the merchandising experts, he will have still less to apprehend in regard to his future sales volume. But every retail nurseryman should realize that competition is the keener because of the experience of those firms in the war years, and all of us should be on the alert to serve the public better to progress with the times.

PROSPECT FOR FARM HELP.

While optimistic about the sales opportunities for nurserymen for several years ahead, some in the industry have expressed doubt as to the help which will be available in this field. The pessimism on this point probably results from the short labor supply almost all nurserymen faced during the war, when the high wages in war factories drew away the able-bodied men who were not in service. Current studies of the agricultural situation tend to relieve that pessimism. In fact, it is probable that men will be seeking the opportunities which the nursery business affords.

Data pertinent to this topic appear in an Illinois survey of rural employment opportunities made by the ex-

tension service in agriculture of the University of Illinois and published in a 48-page pamphlet as circular 592, entitled "Postwar Farm Jobs."

From this survey it was learned that about three-fourths of the men in the army who intend to farm after the war hope to become operators, whereas new operators will be needed only on one farm out of eight in the next five years. While farmers will want more hired labor than they could get during the war, many of the returned servicemen will be looking for something more than ordinary jobs. Such men with farm backgrounds are especially well equipped to handle work in related fields, among which is the nursery industry.

Progress in agriculture is apparent from the fact that farmers produced almost one-fourth more in the three years 1942-44 than in the three years 1937-39, while farm production between 1940 and 1945 was reduced by one-sixth, according to estimates of the federal bureau of agricultural economics. While the high production efficiency gained during the war may not be maintained, it is not likely to go back to prewar levels.

Another important fact is that the agricultural population of the country much more than reproduces itself. For several decades about half the farm youths of the country have sought employment off the farm.

Further data confirming the prospect of an excess farm supply of help were presented at a conference of agricultural and industrial representatives in Kansas recently, as reported by a nurseryman in the preceding issue of this magazine. The goal of that conference was the promotion of industrial opportunities in the state so as to prevent the migration to other states of the excess farm population of Kansas.

After every war and in recessions from high industrial peaks, say the economists, there is a migration back to the farm. That tendency, plus the evidence of surveys in agricultural states, encourages the belief that there will be good men with farm backgrounds seeking employment, providing a source of help with the type of skill that nurserymen need in their production and planting operations.

W. J. HOWELL has opened the Howell Nursery, 107 Main street, Renton, Wash.

Winter Identification of Some Climbers

By Leon Croizat

As I was thinking the other day of putting on paper a set of notes on the winter identification of bitter-sweets (celastrus) and spindle trees (euonymus) it occurred to me that I might seek inspiration from the works of some great dendrologist. The subject is quite as easy in theory as it is difficult in practice, and it is a venial sin for the little fellow to worship at the feet of the masters. Accordingly, I turned to the pages of Schneider's famous "Dendrologische Winterstudien," in the use of which generations innocent of A-bombs schooled themselves to rustic pleasures and good business. In the pages of this book, of course, I found descriptions and figures of celastrus and euonymus, also a warning which would read in English: Please, ladies and gentlemen, notice that we are not to use in our studies anything but shoots of the year, and only shoots chosen with the greatest of care. They must be freely grown, and grown in the best of light.

I closed this book with even greater respect than when I had first opened it. A subject must be tremendously difficult which requires care so meticulous and material so perfect. I shall honestly try to make it as easy as I can, and this will be the limit of my efforts.

Rehder's classic "Manual of Cultivated Trees and Shrubs" lists five genera of the celastraceae—celastrus, euonymus, tripterygium, pachistima and forsellesia. Out of these five groups only two really count, celastrus and euonymus, both from the standpoint of ornament and commer-

cial growing. Tripterygium is satisfactory, but is not widely used. Pachistima is good for the rock garden and for ground cover, but in no sense a major shrub. Forsellesia is rather more a curiosity fresh from

only has opposite or nearly opposite leaves, but branchlets of the year winged on four sides. Right on a level with the buds, these wings—which are darker than the bark—are connected more often than not by a transversal split of light color. If we have a good pocket lens, it will pay us to look at the stipules carefully. These stipules (blackish tufts ending the wings at each side of the petiole) are dark of color, minute (Fig. 1,C), almost as if tufted or bunched.

This is a great deal to say of a minor shrub, but it is worth saying. The stipules of pachistima are of a type normally found on all celastraceae, and leaves which are neither perfectly opposite or alternate are often seen in this family. As a matter of fact, celastrus has alternate leaves, and euonymus opposite, and, as we shall see, the slight irregularity present in pachistima is quite meaningful in a general way.

Knowing this, we may pass to celastrus. Of this genus the Oriental bittersweet, *Celastrus orbiculata*, is ubiquitous, and the American, *Celastrus scandens*, also called waxworth, little less so. The fruit, which splits open in the fall and exposes the vividly red "berry," is their chief attraction, but, alas, this attraction may sometimes fail to show. The reason is simple. The flowers, which are male and female as a rule, are all of one sex in certain plants, and if the sex is male, no fruits will ever

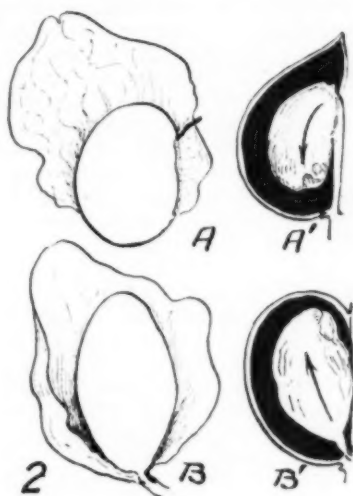


Figure 2.—*Euonymus fortunei*: A, seed with aril partly removed; A', position of seed within the fruit. *Celastrus orbiculata*: B, seed with aril partly removed; B', position of seed within the fruit.

the desert than a horticultural standby.

To dispose of pachistima is not difficult. Those who for the first time face this low-growing shrub will readily assume that they have under the eye some form of blueberry or inkberry with peculiar narrow leaves. Its foliage is dark green and leathery of texture in the manner usual with evergreens, the individual leaf being scarcely longer than an inch in *Pachistima myrsinites* and smaller or much smaller in *Pachistima canbyi*. If we put these leaves under a lens we shall notice toward their tips, or at least above their middle, a few rather sharp straight teeth (Fig. 1,B) which plainly point forward. This will warn us that we face neither a blueberry nor an inkberry.

Next, if the plant is mature, we shall spot here and there tiny but free-grown heads of flower buds (Fig. 1, A), either paired or in threes. This will pretty much clinch the identification, for plants that do this are not common in cultivation and, at any rate, do not wear leaves of this kind. Third, and this will settle matters for good, pachistima not

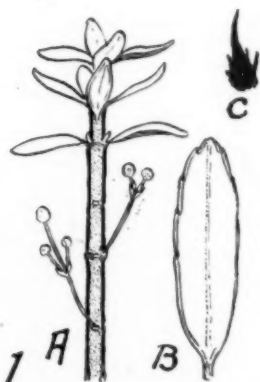


Figure 1.—*Pachistima canbyi*: A, twig with leaves partly removed to show flower buds and wings; B, a leaf seen from below; C, an enlarged stipule.

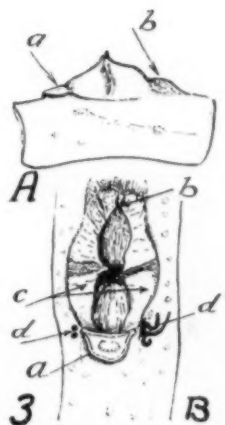


Figure 3.—*Celastrus orbiculata*: A, the bud seen from the side, with leaf scar in a and "pad" in b; B, the bud seen from above, with leaf scar in a, "pad" in b, major bud scales in c, stipules in d (remnants) and d' (entire).

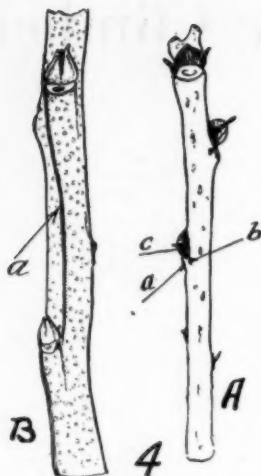


Figure 4.—*Celastrus flagellaris*: A, leaf scar in a, stipule in b, prickly bud scale in c. *Tripterygium regelii*: B, a rib to the leaf scar in a.

be borne. Stock of that kind takes more space in the nursery than it is worth and, once identified, had better be eliminated rather than sold. The case is not frequent, but if it comes about, the customer is sure to complain sooner or later.

Both kinds of bittersweet are collected and sold for ornament on account of the fruit. Nothing is easier than to identify them in this condition. The scales which surround the berry—let us call them this way—are yellow in the Oriental, orange-red to red in the American species. The flowers are also borne, on the whole, in a different manner, for they tend to be carried at the end of long shoots in the native, and on short lateral spurs in the Oriental form. This character is emphasized in manuals, and rightly so, because it answers in the end fundamental differences in growth. It is not always apparent on detached twigs, however, and may be misunderstood. The color of the fruit is safer



Figure 5.—Dutchman's-pipe (*Aristolochia durior*); leaf scar and buds.

throughout. It may be noticed that the Oriental bittersweet is thrifty and aggressive, so that it is frequently found escaped, particularly in our eastern states, and taken for true native stock.

The supposed berry of *celastrus* is red, not on account of the pulp of the fruit, but because of the presence of a peculiar fleshy seed coat, called aril. This coat is also found in *euonymus* and, variously modified, on a great many other seeds. It can easily be removed, exposing the true seed coat (or testa), which is yellowish or whitish in *celastrus* and may be reddish or blackish in *euonymus*, the difference being a valuable character of identification. The seed lies wrapped within the aril as if it were in a bag or cup, and if the aril is short the seed itself may remain exposed at the outer end, which, too, is a character of identification in *euonymus*. We need not go into many details, but considering the importance of these characters, we may add that the aril is more or less extensively attached to the seed, much more so, for instance, in *euonymus* (Fig. 2,A. Example: *Euonymus fortunei*) than in *celastrus* (Fig. 2,B. Example: *Celastrus orbiculata*). The seed within the fruit is also borne differently, sometimes pointing downward (Fig. 2,A¹. Example: *Euonymus fortunei*), sometimes upward (Fig. 2,B¹. Example: *Celastrus orbiculata*), the aril always tending to close at the free end of the seed. These are examples, no more, for departures from these basic patterns are common, all of which can be used by the ambitious student who finds fruits available often well into the fall or even the early winter.

The stipules readily fall in *celastrus*, leaving behind warty scars (Fig. 3,B,d), which are not very conspicuous but fairly characteristic. If the stipules chance to persist they are exceedingly valuable for identification, because their kinky habit is quite peculiar (Fig. 3,B,d¹) and holds good for the genus at large. It will be noticed that these stipules exaggerate the tendencies already apparent in those of *pachistima* (Fig. 1,C), but are here of freer growth and twisting.

The bud of *celastrus* has nothing in itself that may be described as outstanding, yet it is such that a trained eye seldom fails to recognize its outlines. This bud stands plumb, or very nearly plumb upon the branchlet (Fig. 3,A), and has two major scales in a longitudinal position (Fig. 3,B,c), which are longer or slightly longer than high and

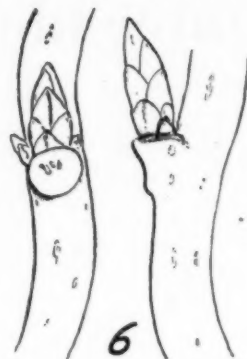


Figure 6.—*Schisandra chinensis*.

strongly ribbed as a rule. The remaining scales may be more or less freely exposed, but the bud cannot be described as pointed in any case, and in *Celastrus orbiculata* at least it extends backward (that is, on the side away from the leaf scar) to form a sort of pad (Fig. 3,B,b), which is characteristic for this species, but missing in others. The mature bark is brownish and finely warty, but tends to be much paler on very young shoots of the American species than it is on those of the Oriental. Two species rarely seen in cultivation, *Celastrus angulata* and *Celastrus rugosa*, both of eastern origin, bear in addition fine ribbings below the leaf scar, in the manner next described for *tripterygium*. Their buds are otherwise of the usual cestroid pattern and lack the pad of *Celastrus orbiculata*. The pith of *Celastrus angulata* and *Celastrus rugosa* is lamellate, or, as it were, storied, which rates as a good character for winter identification.

Another exotic *celastrus* sometimes cultivated and bearing fruits similar to those of the Oriental bittersweet, but smaller and far less ornamental, is characteristically prickly. This climber, *Celastrus flagellaris*, owes its

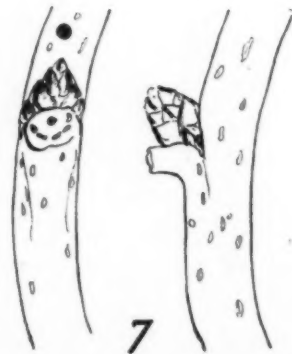
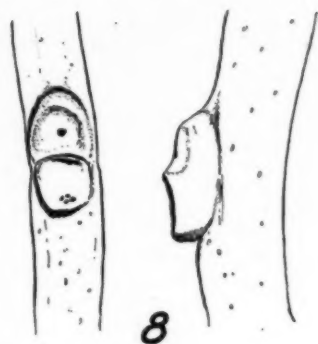


Figure 7.—*Akebia quinata*.

Figure 8.—*Actinidia arguta*.

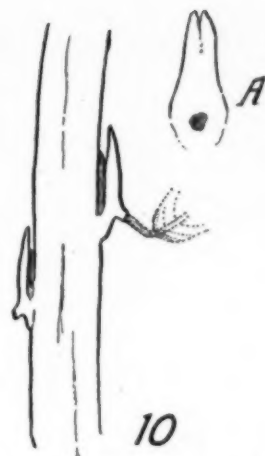
thorniness to the hardening of the midrib of the first pair of bud scales (Fig. 4,A,c), not, as it is often mistakenly stated, to the stipules, which are here of the customary pattern. Errors made in this regard are relevant, because failure to understand the true nature of these thorns may easily stultify an otherwise good winter key. We have here something different from anything like the prickles of *Robinia* and *Zanthoxylum*, because the thorns of *Celastrus flagellaris* can be traced back to an exaggeration of the ribbing common to all the primary bud scales of the species in this group. Were *Celastrus flagellaris* to be keyed out with comparable plants, it would much sooner go with cactus than with any cultivated shrub.

Tripterygium belongs in classification to a group quite distinct from that of *Celastrus* and bears accordingly dry winged fruits which suggest anything but bittersweets and staff trees. These fruits are shed early and grow upon loose spikes reminiscent of *Hydrangea*, such as may fool the unwary, who does not stop to notice

that tripterygium, unlike *Hydrangea*, has alternate buds. A year-old shoot of tripterygium (Fig. 4,B) has a pale orange-brown bark and warts aplenty. Thin wings stream downward from the leaf scar, which, as we know, is reminiscent of *Celastrus angulata* and *Celastrus rugosa*, but these wings are, on the whole, better developed in tripterygium than in these bittersweets. Moreover, and this in free-grown shoots particularly, it may happen that the wing on the long side between buds is stronger than the other. This character does not always work, but wings always occur and, with the color of the bark and its warts, they spell the name of this plant a yard away. Older wood has a distinctive blackish bark with numerous tiny irregular cracks of light color, and no flaking off. If we need more evidence, we may further notice that the pith is solid and pale brown, and the main bud scales markedly two, no longer perpendicular to the twig as in *Celastrus*. The stipules are altogether inconspicuous, and the wood is quite light.

We may dispose right here of certain twiners and climbers which, though wholly unlike *Celastrus* and tripterygium, need to be laid to rest sooner or later. The Dutchman's-pipe (Fig. 5. Example: *Aristolochia durior*) has the twigs of the year with a smooth greenish or yellowish bark, and conspicuous leaf scars surrounding more than one hairy bud. The magnoliaceous *Schisandra* (Fig. 6. Example: *Schisandra chinensis*) has buds in twos and threes, and certainly not vertical to the twig. It bears no stipules, but the leaf scar is enlarged somewhat at the sides, simulating these structures. The bark is a pleasing brown color, manifestly though not abundantly warty. The odor of the bruised twig is more characteristic in the manner of magnolias and tulip trees. *Akebia* (Fig. 7. Example: *Akebia quinata*) might be confused with *Schisandra* at a glance because the bark has practically the same color. However, the warts are many more in *Akebia*, and the buds, usually borne in twos or threes, are deeply wedged in behind the leaf scars. They are shorter, too, than the buds of *Schisandra*, and the midrib of the individual scale stands out sharply as a rule. When in doubt, bruise and sniff, and the scentless *Akebia* will then never be confused with the strong-smelling *Schisandra*.

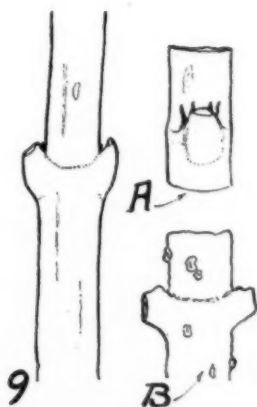
Actinidia (Fig. 8. Example: *Actinidia arguta*) has a most peculiar setup. The leaf scar is large and marked at the base by the remnants of the

Figure 10.—*Berchemia scandens*: Section of twig from the side, the original position of the leaf shown stippled; A, the "shield" of the bud seen from the front.

broken "veins." The bud itself lies hidden within an enlarged casing which runs into the leaf scar, and it barely shows, if indeed at all, through a tiny hole. The color of the bark is reminiscent of the Oriental bittersweet, but it is not a bud and a leaf scar of this pattern that can be confused with anything else.

A very fine vine, *Periploca sepium* (Fig. 9), is the easiest thing in the world to identify. The leaves are opposite, and the base of the leafstalk persists, concealing the bud. This ornamental belongs to the family of the ordinary milkweed, *Asclepias syriaca*, and shows its true color by exhibiting behind the rump of the leafstalk (Fig. 9,A) certain blackish triangular bodies precisely matching the same structures in the milkweed. Older wood (Fig. 9,B) had rough corky lenticels and hardened scars, almost like true wood itself.

Not less remarkable than *periploca* is the supplejack, *Berchemia scandens* (Fig. 10), a vine deserving cul-

Figure 9.—*Periploca sepium*: A, the region of the bud seen frontally; B, the same seen from the side, and on old wood.Figure 11.—*Menispermum dauricum*.

tivation for its pleasing foliage if not for its minute flowers. This climber belongs to the family of the buckthorns (rhamnaceae) and wears a smooth greenish to purplish bark on the shoots of the season. The bud lies behind a structure which has been variously characterized, and often misunderstood, but consists in reality of a pair of stipules (Fig. 10,A), partly or wholly fused, and borne in an erect position. Considering that the bud scale is more often than not represented precisely by that part of the leafstalk which lies close to the stipules, this arrangement has nothing unusual in itself. The arrangement of berchemia may be said to be peculiar, however, to the extent that in this species a fully developed leaf furnishes the first bud scale by the simple device of leaving behind its own foot and stipules while allowing the blade and part of the petiole to fall. We have here merely one of the countless masterpieces worked out in nature through the subtle interplay of leaves and bud scales. In berberis, as we well know, the leaf is turned into a prickle, and its functions are taken over by bud scales that grow leaflike at the tip, granting that we still might describe these organs as bud scales at all.

To close at last, we may figure the moonseed (Fig. 11. Example: *Menispermum dauricum*). The leaf scar is here large and somewhat heart-shaped, with a tiny bud barely showing above. The bark is smooth or obscurely warty, and the scars of the "veins" vary between three and five.

It should be noticed that none of the climbers here mentioned root at the aerial joints or articulations. These plants have in common, as a rule, peculiar leaf scars, which is understandable, considering that their wood anatomy, too, tends to depart from the ordinary.

CONNECTICUT CHANGES GYPSY MOTH QUARANTINE.

An order changing the Connecticut gypsy moth quarantine regulations to conform with the recently revised federal order has been signed by Governor Raymond E. Baldwin and goes into effect immediately, according to Dr. Roger B. Friend, chief entomologist at the Connecticut agricultural experiment station.

The revision puts eleven additional towns in the regulated area in Connecticut. They are Canaan, Cornwall, Goshen, Kent, Litchfield, Morris, Norfolk, North Canaan, Salisbury, Sharon and Warren, all in Litchfield county. These eleven towns are part

of a newly set up gypsy moth suppressive zone, which has been defined by the United States Department of Agriculture.

One immediate effect of the revision in the quarantine order to include these towns is that Christmas trees from Canada and northern New England cannot pass into or through this area without federal or state inspection for the gypsy moth. The order prohibits the movement of materials that might harbor the gypsy moth from the quarantined to the nonquarantined zone. Trees and shrubs, timber products, cordwood, and stone and quarry products are affected.

In Connecticut, Fairfield county and parts of Litchfield and New Haven counties, including the city of New Haven, are in the nonquarantined area. The rest of the state, except for the suppressive zone, has been defined as generally infested.

Movement of host materials of the gypsy moth from the generally infested to the suppressive or quarantine-free areas and from the suppressive zone to nonquarantined regions is prohibited without proper inspection.

EDWIN R. CHANDLER.

Now in his second term as vice-president of the Missouri State Nurserymen's Association, after twice serving as its president, Edwin R. Chandler, secretary of the Chandler Landscape & Floral Co., Kansas City, Mo., is not only prominent in florists' and nurserymen's organizations, but also active in local politics.

Born in 1895, Mr. Chandler began his schooling at St. Louis, where his father was connected with Shaw's Gardens and the 1904 world's fair.



Edwin R. Chandler.

He completed grammar school at Kansas City and attended high school in California. The first year of his college career was spent at the University of California, Berkeley, in the school of agriculture, and the second at Kansas State Agricultural College. In the fall of 1917 he interrupted his schooling to work at the Wyoming agricultural experiment station and later that year he enlisted in the navy, serving in World War I as a radio operator, petty officer second-class, on a submarine chaser.

After the war, Mr. Chandler returned to college, graduating from the University of Illinois in 1921. That same year he became associated with his father, C. A. Chandler, and his brother, George, in the Chandler Landscape & Floral Co.

In 1927, Mr. Chandler was married to the former Sarah Stoner, of Kansas City, and they moved to the Rio Grande valley, in Texas. There he developed an 80-acre grapefruit ranch and also operated a citrus and ornamental nursery at Edinburg. The Chandlers have one son, Scott, 12 years old. Since 1932, Mr. Chandler has managed the floral department of the company.

Mr. Chandler was twice appointed a member of the Kansas City board of park commissioners. In 1942 and 1944 he ran for the office of judge of the county court on the Republican ticket, but was defeated both times, although he managed to win forty-seven per cent of the votes in each race against an opponent in office for twenty years.

Mr. Chandler was president of the Executive Association of Kansas City in 1942 and was president of the Allied Florists' Association of Greater Kansas City in 1943. He is a past president of the F. T. D. unit and also its past district representative. He was director of the Cooperative Club in 1943. He is a York rite Mason and a Shriner, a member of the American Legion and a first lieutenant in the state guard.

PFEIFFER WEDDING FETE.

A small family reunion at home marked the fifty-eighth wedding anniversary December 7 of Mr. and Mrs. C. A. Pfeiffer, Winona, Minn. Mr. Pfeiffer is the senior partner of the Pfeiffer Nursery, Winona, and both he and his wife, in fairly good health, take an active part in the business of the nursery.

FORMERLY at 3704 Armour avenue, Fort Smith, Ark., the Blan Nurseries are now at 3525 North Twentieth street.

Record Attendance at Minnesota Meeting

The largest attendance in the history of the organization marked the convention of the Minnesota State Nurserymen's Association, December 3 and 4, at the Lowry hotel, St. Paul. While the return of peace and unrestricted travel were somewhat responsible, due credit should be given an energetic arrangements committee, composed of Kimball Andrews, Vincent Bailey and Leslie Mitchell, which bombarded members with announcements and post card reminders of the meeting. More detailed planning and a program of unusual merit also showed the work of the youthful trio, ably supported by President Paul Peters and Secretary R. W. Ruedlinger.

When the report of the nominating committee was presented by C. H. Andrews, its recommendations were immediately adopted. Officers were reelected as follows: President, Paul Peters, Sherburn; vice-president, Robert Wedge, Albert Lea; treasurer, Harold Reid, St. Paul. As directors, J. E. Swedberg, Battle Lake, was reelected, and William L. Miller, St. Paul, and Melvin Bergeson, Fertile, were elected for two years. Roy Filk, Biscay, and K. B. Law, Lake City, are holdover directors.

The officers and directors met after the close of the convention and reelected R. N. Ruedlinger as secretary.

Opening the first session, Monday afternoon, December 3, Prof. W. H. Alderman introduced the governor of Minnesota, Edward J. Thye, who expressed his interest in and commendation of the nurserymen's work in providing trees for windbreaks, erosion control, wood lots and home adornment, in a territory lacking or denuded of natural forest growth. He spoke similarly of their development of fruits and promotion of home orchards. He dwelt on the state's work in fostering reforestation and wood lot planting, and on the research work at the state experiment station, closing with the offer of his support of the industry's undertaking.

T. L. Aamodt, who in the past year became chief of the bureau of plant industry after serving in entomological work and nursery inspection service since 1922, was absent from the association's annual meeting for the first time in twenty years, kept home by an attack of influenza. George Nelson ably reported in his absence, dwelling particularly on the provision of the state

law authorizing the condemnation of plants offered for sale in such condition that they could not be expected to live "with ordinary care." Dealers' stock, particularly in novelty stores, that was dried out because of inadequate handling, was especially subject to inspectors' attention, as were balled evergreens that carried noxious weeds, such as creeping jenny. He briefly described the current operation of the two federal quarantines, relating to barberries and white pines, and touched on insect and disease problems of the year.

"Looking Ahead in Agriculture" was the topic of a stimulating ad-



Paul H. Peters.

dress by J. S. Jones, executive secretary of the Minnesota Farm Bureau Federation. Five war years of good crops at high prices had enabled farmers to increase their assets and reduce their liabilities, leaving them substantial savings in war bonds and other forms. Application of these savings to land purchase could only lead to inflation and subsequent disaster, he declared, while their expenditure in improvements, in the form of mechanical equipment, home betterments and family comforts, would advance the status of agricultural communities. The use of low-grade crops for industrial processes, he said, would help avert the problem of farm crop surpluses, always a postwar problem.

Prime horticultural feature of the program were the Kodachrome slides shown by W. R. Leslie, superintendent of the Dominion experimental station at Morden, Man., which in his twenty-five years' direction has become one of the outstanding in-

stitutions on the American continent. Twelve miles north of the border, the Morden station is visited by nurserymen of the northern great plains who are interested in improved fruits and ornamentals hardy in that territory. Much of the 620 acres of land is devoted to farming. Of the 211 acres devoted to horticultural crops, 137 acres are in fruits, a few acres in vegetables, about thirty acres in a developing arboretum and the remainder in gardens and trials of ornamentals. Crab apples, apricots, bush cherries, hardy plums, lilacs and other shrubs were shown in considerable variety. The extensive hedge trials are famous. Lythrum Morden Pink came from the station. Mr. Leslie's running comments were a valuable accompaniment of the pictures, and questions developed instructive information. He closed with an invitation to nurserymen to visit Morden for a personal inspection of the station plantings.

Harold Reid presented his report as treasurer, showing a balance of \$582.85 on hand, compared with \$531.93 a year before, after receipts of \$573.52 and expenses of \$522.60. He closed with the statement that some members had urged an increase in dues from the present sliding scale of \$5 to \$20, according to volume of business. The matter was referred to a committee for report later, the chair appointing K. B. Law, C. H. Andrews, Bj. Loss, M. R. Cashman, D. M. Mitchell, Gordon Bailey and Harold Reid.

At the morning session, December 4, Arthur H. Hill, president of the American Association of Nurserymen, talked entertainingly, ending his remarks in a serious vein with a reference to the possible prospect of overproduction. "Produce only what you know your sales organization can move," he said, "and there will be no problem of overproduction."

M. E. Cashman, chairman of the state association's committee on legislation, reported that the only important bill affecting nurserymen at the 1945 session of the legislature was one which would have authorized the state conservation department to grow trees for reforestation and wood lots. This was opposed in that form and rewritten, and passed, to authorize the department only to contract for the production of trees. Some bids had been submitted by nurserymen, but not yet accepted. Senator M. J. Galvin, the associa-

tion's legal adviser, supplemented the report, noting that the planting of wood lots had been further favored by the reduction from twenty to five acres of the size of tract which, if planted to trees, would be taxed at a low rate annually, a severance tax to be collected in the subsequent year when the trees were cut.

Richard P. White, A. A. N. executive secretary, said the association had 997 members and a Minnesota nurseryman might have badge No. 1,000 if three joined that day.

Foreseeing an increase in production of nursery stock, he believed items maturing in two years might be plentiful by 1947, and gradually the present sellers' market would change to a buyers' market. He thought spring 1946 sales prospects might be clouded by industrial strikes, but that such a setback by no means should lead to price cutting.

Concluding its wartime activities, the A. A. N., he said, would turn to research on equipment, on production, on fruit variety lists and on other subjects. Cooperation with state experiment stations and departments of agriculture would be fostered by the new A. A. N. director of research, John W. Baringer, whose appointment was announced in the December 1 issue of this magazine.

As chairman of the A. A. N. public relations committee, M. R. Cashman directed his hearers to a study of the proposals, published in November, and urged their adoption in January as a protection against overproduction and declining markets in coming years.

At the afternoon session, Lawrence G. Holmes, of Coe, Converse & Edwards Co., Fort Atkinson, Wis., talked on "Landscaping Small Properties," illustrating his comments with slides. He stressed the need of a plan for the proper development of home grounds, whether the homeowner or the nurseryman does the planting. Such a plan should show the size and shape of such plants, leaving the selection of varieties to the planter according to the location and the material available. The slides showed ways of meeting customers' needs and tastes by various types of plants.

"Nut Culture for Northern Nurserymen" was discussed by Carl Weschcke, St. Paul, president of the Northern Nut Growers' Association. His early attempt to plant a black walnut orchard led to extensive trials of various nuts at his home at River Falls, Wis. Hickories he had developed by grafting commercial sorts on the wild hickories of the region,

but, out of fifty, only three made any showing. Black walnuts for the north needed hardiness and early ripening, difficult qualities to obtain. Thomas gets by sometimes, he said, but is not hardy enough. Butternuts are exceptionally difficult to propagate. Hazelberts, obtained by grafting commercial filbert varieties on the wild common hazelnut, have the merits of hardiness and climatic adaptability. They are good as ornamentals as well as for their fruit. They are easily propagated by layering, can be grafted and transplanted easily, having fibrous roots. Chinese chestnuts also are useful as ornamentals. Carpathian English walnuts he had not found hardy. Mr. Weschcke showed a number of varieties of nuts, some of his hybridization.



ROBERT C. WEDGE.

Reelected vice-president of the Minnesota State Nurserymen's Association, Robert C. Wedge, of the Wedge Nursery, Albert Lea, Minn., has spent a lifetime as a nurseryman. A son of Clarence Wedge, one of Minnesota's pioneer nurserymen, Mr. Wedge was born and grew up in the nursery atmosphere. While still in school he took full charge of the evergreen department of his father's nursery, directing everything from the growing to the packing and shipping of the evergreens.

After graduating from the agricultural school of the University of Minnesota, where he specialized in horticulture, Mr. Wedge spent several years in the selling part of the business, managing groups of nursery salesmen in western Minnesota and the Dakotas. In 1908 he went into partnership with his father and upon the latter's death in 1921 he took over the business which he and his son, Don R. Wedge, now operate as a partnership.

The past year Mr. Wedge served as vice-president of the Minnesota State Nurserymen's Association. For several years he was secretary-treasurer of the Northern Retail Nurserymen's Association and served as a member of the executive board of the Minnesota Horticultural Society, of which he is now a life member. Mr. Wedge is a Kiwanian and at one time was president of the local club.

"Soil Conservation Work in the Nursery" was outlined by Joseph A. Abrahamson, who left the soil conservation service to direct this work at the Mount Arbor Nurseries, Shenandoah, Ia. He explained that other nurseries at Shenandoah were also adopting soil conservation methods. By slides he showed the deplorable erosion by water and wind that had been depleting the soil. Terracing and contour planting had been undertaken in the nursery fields. Soil building was being accomplished by crops such as brome and alfalfa or brome and lespedeza to add to the organic content of the soil for three or four years before the use of the land for nursery stock for a similar period. The project is a long-term one, he emphasized, and should be undertaken on that basis. Nurserymen can apply to soil conservation directors, or through county agents, to obtain the government help that is available without cost.

Benjamin F. Dunn, superintendent of the Mayo Forestry and Horticulture Institute, Rochester, Minn., spoke briefly of the plans for test orchards, trial grounds, arboretum and research of this new enterprise. Last spring the Mayo Properties Association and the University of Minnesota signed a contract whereby the latter will cooperate in the direction of the enterprise, for which the former has provided the land and for the current year an appropriation of \$25,000.

Concluding the meeting, Prof. W. H. Alderman, chief of the division of horticulture at the University of Minnesota, gave his annual talk on new fruits. This year he brought no samples, but slides instead, describing about a score of varieties which he believes are ready for introduction and should be introduced within the next five years. These include the following varieties, now under number and to be named when introduced: Apple, 638, 790, 714; crab, 240; pear, 4; Plum, 101, 89, S.D. 27; Nanking cherry, 41, 63, 64; Korean cherry, 60, 20; grape, 78; currant, 69; black raspberry, 219, 262; strawberry, 1118. In addition, he said, some hardy sour cherries and hardy peaches were ready for introduction. The station supplies propagating wood to nurserymen to work up a stock preparatory to introduction of a variety to the public.

About 120 varieties of European plums are being tested at the fruit farm, he said, some of them very old kinds, some new. Recommended were Mount Royal, Gueii (Bonny

[Concluded on page 50.]

Instructive Talks on Wisconsin Program

Return to peacetime conditions was reflected in the excellent attendance at the twenty-ninth annual convention of the Wisconsin Nurserymen's Association, December 5 and 6, at the Hotel Schroeder, Milwaukee. More than sixty persons were in attendance, including some nurserymen from other states. The shortage of help, however, limited the attendance of some members to a single session, because the temperature was above freezing and work was abundant.

President H. W. Riggert opened the morning session December 5 with a brief address as president, calling attention to the healthy financial condition of the association and the continued increase in membership. Again he suggested inviting the American Association of Nurserymen to hold its annual convention at Milwaukee two or three years hence, the occasion of Wisconsin's centennial celebration as a state in 1948 affording an opportune time for the event. He again proposed a short course for nurserymen which might be offered by the University of Wisconsin, for the benefit of employers and employees alike, such as the short courses offered by state universities in neighboring states.

Thomas S. Pinney read the secretary's minutes and gave the treasurer's report, indicating a current balance of approximately \$540 on hand. On the nominating committee were appointed W. H. Remond, James Livingstone and Harold Anderson.

Ed Eschrich, Milwaukee, was advanced from vice-president to president in the election on the second day, and R. C. Pippert, Cleveland, was chosen vice-president. Thomas S. Pinney, Sturgeon Bay, was reelected secretary-treasurer.

Conrad L. Kuehner, extension horticulturist at the University of Wisconsin since 1923, talked on "Fruit Extension Work in Wisconsin," in which he is well known for his accomplishments. He stressed the importance of guiding home planters in the selection of varieties and in proper maintenance of fruit trees and berry plants. He distributed to nurserymen mimeographed copies of sheets carrying suggestions as to small fruit planting for Wisconsin farms, a suggested farm orchard planting for southern Wisconsin and a similar orchard suggestion for northern Wisconsin. He had arranged on the table before him thirty-three varieties of apples grown in

Wisconsin, and he discussed the merits and demerits of each, advocating a considerably smaller list of varieties for the state. By means of lantern slides he similarly showed the good and bad points of other fruits and some berry plants.

The luncheon speaker was C. B. Whitnall, for many years on the Milwaukee county park board, for whom one of Milwaukee's newest and most famous parks is named. He gave as the title of his talk, "The Inaptitude of the City Builder Concerning the Inclusion of Vegetation as a Fundamental Factor for the Common Welfare of Man." He expressed his belief in the need of



Edwin R. Eschrich.

plants in the environment of the home and thought the day would come when plantings would be regarded as a necessity for the surroundings of apartment buildings and even residential hotels.

At the afternoon session a stimulating address was presented by R. A. Trovatten, Minnesota commissioner of agriculture, on "What Does Your Industry Need?" Besides being recognized for his cooperation with nurserymen in Minnesota, Mr. Trovatten was helpful on a national scale a few years ago when he was president of the National Association of Commissioners, Secretaries and Directors of Agriculture. In his address he stressed the importance of research in connection with regulatory and control efforts. He thought cooperation of regulatory officials and nurserymen might be carried further in many states, with the successful results achieved in Minnesota. He suggested further coop-

eration by enlisting agricultural engineering departments in state universities in the development of new kinds of machinery for nurserymen, as well as with other state organizations in the development of industry statistics. He urged more attention to honest advertising and honest labeling for the protection of the public, and he favored the instruction of dealers in the proper handling of nursery stock.

E. L. Chambers, Wisconsin state entomologist, opened his talk on recent developments in nursery inspection by introducing two members of the inspection staff who had recently returned from service in the navy, A. L. Pillar and Hubert Halliday, as well as two inspectors who had been on the job through the war period, Philip Smith and William Morris. Mr. Chambers referred to the numerous insecticides of recent origin, explaining that none was a complete cure-all and that the nurseryman must become acquainted with each as to its purposes and application. As another means of avoiding insect pests, he advised care in the location of nursery plantings, especially with regard to old orchards or other established plantings in the vicinity.

He called attention to a proposed change in the state quarantine for the white-pine blister rust, which will permit shipment of ribes without permit into some of the southern counties of the state, while permits will continue to be required for shipments of ribes into northern counties, where the white pine plantings are located. He thought change might be made in the regulations concerning the shipment of susceptible varieties of barberry, placing the responsibility on the nurseryman, so that such plants would not go into those states where control measures are in operation for the stem rust of grains. He showed a film from the United States Department of Agriculture about the white-fringed beetle, at present a pest only in restricted areas in the extreme south.

Mr. Chambers called attention to the continued efforts of his staff in the education of the public in the matter of inspection tags and of dealers with reference to the state law requiring that stock offered for sale must be of suitable hardiness and in vigorous-growing condition. Dead or dried-out stock found in dealers' hands had been burned in some cases, as a result of the vigorous

program of inspecting the offerings of more than 200 dealers several times a year.

"Recent Developments in Damping-off Control" were reported by Dr. A. J. Riker, of the University of Wisconsin. He related the findings in tests made in red pine beds at a state nursery. He explained that two fungi are responsible for damping-off in Wisconsin, one a pythium and the other a rhizoctonia, and the conditions favoring one do not always favor the other. The ravages of the pythium are noted by the damping-off of seedlings in a hit-or-miss fashion through the seedbed, whereas the rhizoctonia shows its appearance by circular patches of affected seedlings. Temperature, moisture and soil acidity are factors in the control or prevalence of both, accounting for propagators' attention to weather conditions and their use of sulphuric acid in spite of the latter's effect on the chemical condition of the soil. His experiments led him to favor a mercuric compound called Barbacsee for pythium and a different mercuric compound, Calomel, for rhizoctonia, the former applied to the seed and the latter applied to the surface of the seedbed. These products do not kill the weed seeds, as does sulphuric acid, and so he suggested the use of Thiosan as a weed killer in the seedbed.

At the evening banquet, an inspiring address was given by Milo K. Swanton, executive secretary of the Wisconsin council of agriculture, on "Can Americans Face the Future?" Toastmaster was Frank Greenya, prominent in local civic affairs and in the American Legion.

At the Friday morning session, Arthur H. Hill, president of the American Association of Nurserymen, wittily recounted anecdotes of the traveling which his office requires and seriously counseled nurserymen to plan thoughtfully their business operations in the postwar years. He was followed by R. P. White, executive secretary, who told of current and proposed activities of the national organization and dwelt on the industry outlook as one which held great opportunities and likewise problems that required study by all engaged in the business.

Similar thoughts were expressed by Herbert Trautman, of the Trautman Nurseries, Franksville, Wis., in his talk on "A Changing World and Our Industry." He referred to the many new chemicals which would be of service to nurserymen and the likelihood of new processes and equipment affording opportunities for new production procedure. He

anticipated changes in the public, both in its knowledge of nursery stock and its appreciation of its value. These would require that each nurseryman be on his toes, not only to be more successful in his own business, but to serve the public more satisfactorily.

A. A. N. Numbers 1,000.

The meeting of the Wisconsin chapter of the American Association of Nurserymen was marked by the reception of the one-thousandth member into the national organization. Three members joined at that time, Behle's Nursery, Rolling Prairie; Erikson Gardens, Janesville, and R. A. Gieringer, Milwaukee. Representatives of these three drew straws to determine which would have badge No. 1,000 and Mr. Gieringer drew the right one.

Charles Hawks presided over a discussion of the public relations program planned for the A. A. N., and all but two minor points met general approval. J. P. Foster was elected president of the chapter; W. H. Remond, vice-president, and Thomas S. Pinney, secretary.

Delegates to the board of governors meeting at Chicago next month are Mr. Foster and Mr. Remond. Alternates are Floyd Fancher and Karl Junginger.

TREE-LIFTING DEVICE.

Pictured on this page is a homemade device used at the Vermont agricultural experiment station orchards for moving trees in winter. With this simple contrivance trees can be transplanted with the adhering soil and many roots undisturbed. If the good roots are saved, 10-

year-old trees can be transplanted without any setback.

The tree-lifter is simply constructed. The base is a plank drag with rope attached for hauling the trees. An upright frame supports a lever-derrick which makes it possible to lift several hundred pounds of soil along with the roots. Burlap is wrapped around the tree trunk to protect it during the lifting process. Two men with a horse or tractor can do the job. M. B. Cummings.

BEACH STRAWBERRY.

As an attractive evergreen ground cover, the beach strawberry, *Fragaria chiloensis*, is one of the most successful for this purpose of several native California perennials, according to Maunsell Van Rensselaer, director of the Santa Barbara Botanic Garden, describing the plant in a recent issue of Parks and Recreation. The plant is able to cover completely a large area with a thick soft carpet within a relatively short period of time. It is resistant to drought and of remarkable beauty when in bloom.

Fragaria chiloensis is a native of the Pacific coast, from southern Chile to Peru in South America and from California to Alaska in North America. The species was first collected in Chile, hence its name. Taken to Europe in 1712 from Chile, it is the probable original of the ordinary cultivated strawberries of America.

The beach strawberry closely resembles some of the ordinary garden varieties. It is a creeping evergreen perennial with glossy dark green leaves, carrying showy white flowers from early March to late April in western gardens. As the white petals fade they frequently take on a pinkish shade. The stamens and pistils are a rich yellow. In the wild the plant bears small berries, but as a matted ground cover it produces few berries.

Like most other strawberries, it propagates itself by means of runners, which, under favorable conditions, extend for several feet in a season. These runners take root at the nodes, and the resulting plants may be separated from the parent and moved in late fall or early spring. During the winter or spring, sections of runners may also be rooted in sand under glass. Many California nurseries stock this strawberry as a standard item. No information appears available as to its hardiness, but it may be assumed that the strain from the Alaskan coast would be hardy in colder climates than California.



Homemade Tree-lifting Device.

Beginning in the Nursery Business

IV. MAIL-ORDER NURSERIES

By John J. Pinney

One of the most fascinating ways of selling nursery stock is by mail. If you think you have any talent for advertising, merchandising, selling or catalog building, the mail-order business will afford you an ample opportunity to demonstrate it. Some folks are temperamentally unequipped to deal with the public face to face in the manner necessary to become successful retailers, but can write letters that will please the customers. If you are one of these, we recommend for you the mail-order business over the other types of nursery business because you will rarely see your customers.

Although one of the oldest types of nursery business, the mail-order nursery has made a phenomenal growth in recent years. Prior to 1925, the mail-order nurseries of the country could have been counted in dozens. Today they run into the hundreds.

The most rapid development of the mail-order nursery business was concurrent with the early growth of radio broadcasting. Direct selling by radio reached its peak in the "roaring 20's." Multitudes of folks enjoyed the novelty of shopping on the air, but nurseries selling by radio soon found that in order to get the greatest benefit from their radio advertising they had to follow up by sending catalogs to their customers. Today direct selling of nursery stock by radio is of minor importance, but radio remains a standard medium of advertising for nurseries, along with magazines and newspapers.

There are still many towns all over the country, some of them fairly large, that have no nurseries. The folks in these towns either have to drive considerable distances to buy their trees and shrubs, or else buy by mail. The latter method is chosen by many as the easier. Old-established nurseries that used to make all their sales by personal solicitation found it extremely difficult during the war to secure salesmen. Some of these firms decided to issue catalogs to supplement the work of their salesmen.

The reasons are hard to analyze, but it is a fact that nearly everyone likes to receive packages by mail, express or freight. There is the pleasure of anticipation after you have mailed the order, followed by the

Supplementing general pamphlets issued by governmental agencies and colleges instructing returned war veterans on opportunities and problems in starting their own business enterprises, this series of articles deals particularly with the nursery field. The various methods of sales operation are treated in separate articles.

While directed primarily to the returned veterans seeking to establish themselves in this business, the articles will be useful to others of limited experience.

Reprints will be made available for distribution to your sons or employees in service, or to others who might benefit. Just send names and addresses if you wish the articles mailed direct as they appear, or write the editor the number of reprints you would like for your own use. There is no charge—this service is contributed by the magazine in the veterans' behalf.

fun of opening the package and examining the contents, noting how the real article compares with your mental image of it. Mail-order customers are found in all communities—large cities, small towns, villages and on the farm.

The largest mail-order houses in the country maintain regular nursery departments in their catalogs. Beginning in a small way only a few years ago, these departments have grown to such large proportions that today they are among the largest distributors of nursery stock in the United States.

Your mailing list is your greatest asset. To the building of it you should devote your greatest skill and your most careful attention. There are several ways of advertising to secure names for your list. You may decide to use any or all of them.

There are two theories of advertising nursery stock for the retail trade. One holds that the advertisements should offer specific items for sale, stating price and soliciting orders direct from the advertisements. Thus the advertiser secures a name for his mailing list and the profit from the sale helps to defray the cost of the advertising. The other theory upholds the institutional type of advertising. Specific items may or may not be offered, but the chief purpose of the advertisement is to arouse enough interest in the advertiser's product on the part of the reader to spur him to action, the action consisting of sending for a catalog. The chief purpose of any advertising you do will be to build your mailing list with the names of people who you know are interested in nursery stock. Your

problem will be to decide what kind of advertising to do, whether direct selling or institutional, or both, and what media to use, newspapers, magazines or radio.

The kind of nursery stock you plan to sell and the territory in which you want to sell it are prime considerations in deciding how to spend your advertising budget. Let us suppose you have decided you want to sell mostly fruit trees and fruit plants. Obviously your best markets are not in the large cities or urban areas, but in small town and farming sections. Accordingly you would not advertise in the big city newspapers, but in the farm press and in small town newspapers.

Now, let us suppose that you plan to confine your territory to four or five states, the ones that you can serve the best. Advertisements in magazines with a national circulation would be wasteful because your inquiries would come from all over the country. Make up a list of the publications that circulate in the territory you want to develop; send for sample copies, advertising rates and breakdowns of circulation. With this information you can decide which publications give you the best coverage.

For nation-wide coverage the garden and home magazines give best results. The advertising rates in most of those magazines are high; so you will have to use good judgment in deciding what and when to advertise and in preparing copy. Bear in mind the fact that in magazines with large circulation space must be reserved a long time in advance and copy must be mailed many weeks ahead of publication date.

One successful mail-order nurseryman obtains most of his names from advertisements in daily papers, especially Sunday editions of papers that maintain garden departments. He does not attempt direct selling, but offers interesting and unusual novelties in several small advertisements rather than one large advertisement. His theory is that he attracts more buyers by offering many items instead of featuring only one or two.

Some mail-order nurseries have found radio advertising very effective in building their mailing lists; in fact, a few of them have been de-

veloped entirely by this means. The territory which the average radio can cover effectively is not great. The local stations cover a radius of only fifty to 100 miles; only the most powerful stations can claim a radius of several hundred miles.

Advertising time on the radio is so much in demand that you may not be able to get your advertisement put on the air at a time when it would be most effective. If your customers are farmers, an announcement at 10 o'clock in the morning may not be very effective. If you are catering to the city trade a plug at 6 o'clock in the morning will find most of your customers asleep. Because of the inflexibility of radio advertising you may find it difficult to cover your territory effectively by this means alone.

To be most effective, any kind of advertising must be done regularly. Sporadic advertising rarely pays. It takes time to break in on the consciousness of your prospects, and the best way to do this is by constant repetition, not necessarily of the same advertisement, but of the same idea and, of course, your name.

You have noticed that many firms having no civilian goods to sell during the war continued to spend huge sums of money in advertising. They did not want the public to forget them or their peacetime products. The effects of advertising are cumulative; the longer you advertise, the more effective each subsequent advertisement becomes.

You should consider the advantages of placing your advertising through an advertising agency. Such an organization writes your advertisements, prepares schedules, reserves space and supplies the publications with copy in time for publication on the scheduled dates. In other words, the agency looks after all of the details. The best thing about it is that the services of an accredited advertising agency cost you exactly nothing. The publication pays the agency a commission for your advertising business. Your only expense will be the cost of the art work, engraving and electrotypes, expense which you would have even if you handled all the details yourself.

You may think that because your advertising budget is small, an agency would not be interested in handling it. That might be true of some of the larger agencies, but there are many small firms capable of doing good work that are looking for new accounts. They know that nearly all accounts start with small budgets. They also know that if they do a

good job for you, your account will grow.

Do not be in a hurry to select an agency. After you have interviewed several, you will have a pretty good idea which one shows the most genuine interest in your business.

A word of caution: Do not buy mailing lists, even though they consist of names of actual purchasers of nursery stock. Remember they are not your customers and probably never heard of you. One nurseryman who built up his mailing list in two years to 80,000 by buying names found that he did no greater volume of business than another nurseryman who had a mailing list of only 25,000 built by advertising.

Writing advertising copy is a highly developed art. Advertising agencies employ skilled copy writers. This is another reason why it is to your advantage to employ an advertising agency. Guard against exaggerated and false statements, not only because they are dishonest, but because they are not necessary. Reasonable, straightforward statements breed confidence and are just as convincing as those that impose upon one's credulity. The buying public is intelligent; do not insult it.

Keep detailed records of your advertising results. This will furnish you with the information you need to make the most intelligent distribution of your advertising funds the following year. The first year you will have to rely solely upon your own judgment or that of your agency, but in subsequent years you will have experience to help guide you. After a period of years you can eliminate a large part of the guesswork in advertising because you will know from long experience what results to expect from each publication.

You should know how many inquiries each publication produces for each advertisement used and from what states or areas the inquiries come. Then, at the end of the season, by dividing the cost of the space in each publication by the number of inquiries produced by that publication, you can arrive at the cost per inquiry.

Some of the results may surprise you. For example, a publication with a high advertising rate might pull so many inquiries that the cost per inquiry will be lower than those obtained through publications with low advertising rates. Rates are based, to a large extent, on circulation.

The cost per inquiry tells only a part of the story. Your records should also show which inquiries turn into orders. Sometimes a publication will produce a large number of inquiries,

but few of them result in orders. On the other hand, you will find some periodicals that pull comparatively few inquiries, but a high percentage of them turn into orders. The publication that is the greatest value to you is the one that produces the greatest volume of business per dollar invested in advertising space. Several years of careful record keeping will be required before you have enough information to make a complete appraisal of each publication used.

In order to secure the information you need from advertisements you should follow the practice known as keying. One way is to give each publication a number or letter and each advertisement a different number or letter. For instance, you might be advertising dwarf apples in the "Farmer's Friend." The letter A could stand for "Farmer's Friend" and the number 6 for the dwarf apple advertisement. Then when inquiries come addressed to you with the combination A-6, you know immediately what advertisement your prospect read and in what publication. There are many other ways of keying that your ingenuity will suggest to you.

If a prospect does not order after a year or two, remove his name from your list. Avoid cluttering up your list with names of folks who are not customers because it costs a lot of money to print and mail catalogs. Make every effort to send them only to people who are interested.

THANKS IN TULIP BULBS.

Two thousand red tulip bulbs from Holland were presented the Kansas City park department November 15 by Evert Asjes, a native of Holland and owner of the Rosehill Gardens, Kansas City, Mo.

"After five years of war," Mr. Asjes wrote the park board, "we have again received our regular shipment of Holland-grown tulip bulbs. The Dutch people have undergone a terrific siege by the aggressors and are now a free people again. This was made possible only through the great help this country and its allies have given. As a token of appreciation I would like to give the tulip bulbs to this community to be planted in the park and boulevard system."

PERRY DENTON has located his business, the Denton Landscape Service, at 1614 West Main street, Marion, Ill. It was formerly the Denton Farm and Nursery, at Calera and Sylacauga, Ala.



LAMINITE TREE GUARD

"It Locks In Place"

Chemically impregnated...
Retains SNAP indefinitely.
Resists insect attack.



Easily and quickly installed. Fits trees to three inches in diameter. Adjustable as the tree grows. Stays firmly in place without tying or fastening. Neat appearance.

Retail Price

6 for 85¢ — Bundled
\$18 per Gross — Bulk

Priced f.o.b. Laminite Products factory, Canton, Ohio. Packed 1/2 gross to a carton. Carton 24"x18"x20". Weight 41 lbs. Ships 3rd Class LCL freight. Greater lengths—prices are proportionate. Convenient size literature for over-counter handout, direct mail and statement enclosure use are available in quantities consistent with sales.

LAMINITE PRODUCTS

1800 22nd Street N. E., Canton 5, Ohio

We are interested in Laminite Tree Guards.

☐ Send 2 sample guards and Catalog
Sheets and quote discounts to us.

We are ☐ Jobbers ☐ Retailers ☐ Users.

Name.....

Firm.....

Address.....



CHARLIE CHESTNUT

"Deafy" Garret and the Wooden Indian



Years ago there was an old gent in Riverbend by the name of Deafy Garret. That is, his name was really Garret, but everybody called him "Deafy," because whenever his turn came to buy the beers at Steamboat Fulton's bar he never could hear any hints at all that was thrown at him by the other boys. But whenever there was free drinks on the house he could hear it, even if he was clear out in front of the bar leaning on the hitching rack, which was all along Main St. in those days.

Deafy did quite a thriving business at that time as a harness-maker, and he had a little one story building between Doc Hart's office and the livery barn. I remember many of the old timers used to hang out at Deafy's place in the back room sitting around the stove while Deafy would mend a halter or fix up a horse collar.

He took to keeping a box or two of cigars to save the boys from getting up and going out for a smoke. Gradually he kept adding a few things, like cob pipes and fine cut tobacco until finally he put in a show case and had a cigar store, of a sort.

When harness making begun to peter out he stayed on with the cigar store and added a wooden Indian, which used to stand out in front with one hand raised up in the air holding a handful of stogies. Among those that used to loaf there on a rainy afternoon was Doc Hart and Sandy Bowers and Emil.

Them four was a team that opened the bass season every June up at Rooster Lake where Deafy kept an old leaky boat. I don't remember much about old Deafy as he has been dead now for fifteen years or more, but the other day me and Emil was looking over the Gazette in the office when Gus, the mailman, brought in the mail and there was an item there that took Emil's eye. The Gazette carries items from 10 years ago and 25 years ago as a special feature every week. Emil always reads that part so he spied that item right away.

"Listen to this, Charlie," he says, "Nov. 1, 1920. One of the landmarks of Riverbend disappeared during the Halloween celebration last

night and so far has not been either seen or heard of. Old Chief Sourpuss, the wooden Indian, which has stood in front of Deafy Garret's Cigar Store since the turn of the century, left his moorings for parts unknown. Deafy says if Chief isn't back at the old stand within three days he will make it mighty hot for somebody."

"Did he get it back, Emil?" I says.

"No, he never seen it again after that, but that is a long story. It was a topic of conversation around town for many a day."

"You didnt have any part in it, did you by any chance?" I says. "Halloween is only kid stuff."

"There was me and Doc Hart and Sandy Bowers done it just for a joke on Deafy. We had been down at Deafy's that afternoon and cooked it up between us while Deafy was waiting on some customers. We figured to just hide it for a day or two and then slip it back in place some night without no harm done. I stood out in front to keep an eye on things, while Sandy and Doc carried the Chief out and put it in a shed in back of Doc's office. It was just a small shed where Doc kept his coal.

We had a great time with Deafy for a couple of days listening to him rave and threatening what he was going to do to whoever took his Indian. When we figured it had gone on long enough we went out one evening to get the Indian, but he was not to be found anywhere. There wasnt a sign of him in Doc's shed. We held a hasty conference between us and decided to say nothing until we located the Indian.

There was two factions sprung up in Riverbend regarding the Indian. Quite a few of the members of the woman's club and some others said it was a good thing to get that monstrosity off Main St., and others, led by me and Sandy and Doc, was strong for Deafy to get the Indian back at the old stand. In fact we chipped in and made a reward of \$10.00 for the return of the Chief. But there wasnt a sign of him anywhere and nobody come forward to claim the reward.

During the winter Deafy posted a big sign in his window adding \$5.00 extra every week for a reward for information leading to the return of

his Indian in good condition. By spring the reward stood at \$200.00 and it gave Deafy quite a little publicity. Me and Doc and Sandy begun to feel a little uneasy going into Deafy's place, as he was taking it hard about the Indian, claiming it was ruining his business having the Chief missing from his usual stand out in front of the store.

The next spring we all went up to Rooster Lake when the bass season opened. Me and Deafy took his boat and Sandy and Doc rented another one. Sandy and Doc fished in our usual place but Deafy was all for going up to the far end of the lake. We fished for a half hour and had a few runty blue gills, when we seen a boat coming toward us. He kept coming until he was right along side and I was just going to bawl him out for getting so close when he flashed his game warden papers on us.

"Got a license?" he says to me.

Fortunately I had my license and showed it to him.

"This here is an Illinois license, you are fishing in Wisconsin, the state line runs across this lake right there by those two oaks," he said, pointing to the shore.

Then he jumped on Deafy. "Lets see your license," he says to Deafy. And Deafy come through with two licenses, which was a big surprise to me as he never had said a word to me about being over the state line.

"Lets see your string," the warden says to me. I held it up and he measured a couple that was a inch or so under size.

"Better come along with me," he says and took me along in his boat.

It cost me \$28.50 when I come up before the judge which was the most expensive fishing I ever got into. I didn't blame Deafy but I thought it was funny for him to have that license knowing how tight he was about everything that cost money.

That summer Doc had a Morgan mare for his driving horse. He wasnt in any notion of selling it but Deafy kept after him to sell, said he needed a horse his wife could drive, and he just wouldnt let Doc rest. Every time he seen Doc he tried to make a deal for that mare. Doc was around

Others Found It Worth While— It's Time That You Try It!



(Red Leaf) POWDER
for
treating hardwood and
softwood cuttings, etc.
2-oz. jar, \$1.00
1-lb. jar, 4.50



(Green Leaf)
CONCENTRATE
for
Soaking bulbs and tubers,
etc. One capsule makes one
gallon solution.
8 capsules, \$1.00
50 capsules, 4.50

Comments from users:

... "It paid dividends many times. I rooted plants I was told I couldn't do, with hollow stems. Geraniums with only a leaf and a small bud. Wish you had someone this way that could call in and look over our stock—every bud and small cutting now means 75c to a dollar."

... "I tried Proliferol (Green Leaf) for Calla Lilies. I had 100. I made four different plantings. Soaked them in the solution for 15 hours. Four of the bulbs were in very bad condition. I had a good mind to destroy them but thought I would try them. In fact, they all four came out nicely and are nice and healthy, with beautiful foliage. I am very well satisfied with the results I had."

Write for free illustrated Booklet

SCHUYLKILL CHEMICAL COMPANY
2350 Sedgley Ave. Philadelphia 32, Pa.

among the farmers all the time with his veterinary work and he knew he wouldn't have no trouble to pick up a good horse. So he made a deal with Deafy to sell the horse for \$40.00.

Deafy come over one evening and lead the horse home, but he never said a word about the \$40.00. Doc didn't think anything of it at the time, because he saw Deafy almost every day, and he figured Deafy would pay him when he got around to it. Doc was feeling a little extra nice toward Deafy on account of the Chief, so he decided to just wait and see how long Deafy would take to pay up.

"Did Doc get his money?" I asked Emil.

"No, Deafy never said a word about it and neither did Doc and Deafy never did pay him a dime for that horse. Me and Doc talked it over many a time and couldn't figure it all out.

In those days Sandy Bowers worked for the Telephone Co. He was a general repair man and had a wagon which he kept in his barn with all the tools and wire and different stuff they used for putting in telephones. Telephones was being put in all over town then. One day that fall Sandy missed a big roll of

CHRISTMAS, 1945

Now that our prayers have been answered with the return of "Peace on earth, good will to men," may we be given the wisdom and courage to maintain it in the future for ourselves and for our children.

THE WILLIS NURSERY CO.
Ottawa, Kansas

EUONYMUS ALATUS COMPACTUS

18 to 24 ins., \$40.00 per 100; 2 to 3 ft., \$60.00 per 100.

EUONYMUS ALATUS

2 to 3 ft., \$40.00 per 100; 3 to 4 ft., \$65.00 per 100.

I. E. ILGENFRITZ' SONS CO. MONROE, MICH.

copper wire off the wagon, never did find out what become of it. The telephone company was run then by the Riverbend Telephone Co., old man Morse was president, and they held Sandy responsible for that wire. They took \$30.50 off Sandy's pay. Sandy was burned up, but although he kept an eye out for it for a couple of years afterwards he never did find that wire.

It may of been my imagination but it seemed that after that, Deafy was a lot more friendly than he had been for some time. Things went on in the usual way for several years and the whole thing was forgotten.

Not long after Deafy died, his wife had an auction, you may remember that, Charlie, thats where I picked up that sulky out in the corn crib. Anyway when the stuff was brought out for sale there was a roll of copper wire all carefully wrapped in paper with a tag on it, "This wire belongs to Sandy Bowers."

Also among the stuff was a fine old cutter and a single harness all in first class shape. There was a tag on that, "This cutter and harness belongs to Doc Hart, in payment for one Morgan mare."

"Did he have anything marked for you, Emil?" I says.

"Yes, he squared it with me too for that frame-up on the fishing license. He left me a good set of double harness. Part of it Im still using for old Victoria, that set of tugs and that belly band is part of it. He left that to me.

"And that wasnt the climax either," Emil continued, "Out of the haymow they brought down that old wooden Indian, still holding his arm up in the air with that bunch of wooden stogies. Doc and Sandy and I was all there at the auction standing together when they brought it down."

"What do you make out of it, boys?" Doc says.

Just then we spied Deafy's widow and she come over to where we was standing.

"My husband always said he would like to be here when you boys saw the wooden Indian brought down out of the haymow," she said. "He told me years afterward that he saw you three taking the Indian that Halloween night and that he was going to get even with you in one way or another. I guess he did from what he said. But it was all in fun. He was going to put the Indian back again, but I talked him out of it. We decided it was just too old fashioned for Main St."

"She offered us the Indian and Sandy put it up in his barn, I guess

its still there," said Emil, getting up from his chair.

"My gosh, Charlie, its after 8 o'clock," he says. "You get on down to Mrs. Morse with them two Soft Maples and tell her we aint got time to move them peonies, we're too busy."

INCOME TAX CHANGES.

Generally speaking, the tax bill signed by the President November 8, 1945, reduces both individual and corporation tax liabilities for the year 1946. The new rates will not apply to returns made next March, but will affect withholding taxes on salaries and wages paid after January 1, 1946.

For individuals the normal tax of three per cent on individual income will continue, but the personal exemptions from the normal tax are to be the same as for the surtax, \$500 for each taxpayer and each dependent. Surtax rates are lowered three per cent points in each bracket, beginning at seventeen per cent instead of twenty per cent. In addition, after the normal tax and surtax have been computed, the taxpayer will deduct five per cent from the total, paying only ninety-five per cent of the tax as computed under the new schedule.

Withholding taxes will drop January 1. New withholding tables will soon be available from local internal revenue bureau offices. Form W-2 rules have been changed as of January 1, 1946. W-2 statements must be furnished not only to those employees from whom taxes have been

withheld, but also to any employee from whose wages or salary taxes would have been withheld had he claimed only one withholding exemption. This change is due to the fact that an employee's W-2 statement may still be used as a short form tax return at the end of the year.

For corporations, the excess profits tax is repealed as of January 1, 1946. All corporate income from that date will be subject only to the normal tax and surtax. Refunds from excess profits taxes paid in war years can still be claimed if the company would have had an unused excess profits credit for 1946. Normal tax rates remain the same. Surtax rates on corporations are reduced. The surtax rates for corporations earning up to \$25,000 net are reduced from ten per cent to six per cent. Graduated cuts continue up to net income of \$50,000, and two percentage points are cut from earnings above \$50,000.

The capital stock tax is repealed for years ending after June 30, 1945. The declared-value excess profits tax is repealed with respect to taxable years ending after June 30, 1946.

Pay roll taxes for old age retirement scheduled to jump to two and one-half per cent on January 1, 1946, on both the employer and employee, are frozen at the current rate of one per cent each for the calendar year 1946.

The use tax on automobiles and motorboats of \$5 each is repealed as of July 1, 1946.

HESS' NURSERIES

Mountain View,
New Jersey

NORWAY RED PINE

300,000 5-yr. transplants.

Average, 24 ins.; minimum, 18 ins.
High-grade stock.

Offer at 50 per cent less than market price for large orders placed early for spring shipment.

Write or wire

SUNCREST EVERGREEN NURSERIES
Johnstown, Pa.

We Offer—

EVERGREENS—In a large assortment of PYRAMIDAL and GLOBE ARBORVITAE, PFITZER JUNIPER and YEWs in grades at attractive prices. SOME LARGE SPECIMEN EVERGREENS. SHRUBBERY and SHADE TREES.

Mail want list for prices.

THE WESTMINSTER NURSERIES
Westminster, Md.

LINING-OUT STOCK OUR SPECIALTY....

Shade Tree Whips . . . a timely finished product saving 2 to 4 yrs.' growing effort . . . excellent variety.

A very complete line of ORNAMENTAL TREES, SHRUBS and EVERGREEN SHRUBS, including many scarce items.

THOMAS B. MEEHAN CO.
DRESHER, PA.

STRAWBERRIES • GRAPES • ASPARAGUS • CANNAS

BEST QUALITY STOCK — ORDER NOW FOR SHIPMENT AS WANTED — FALL '45 SPRING '46

STRAWBERRY PLANTS

Weather conditions in our locality have been favorable this season for the production of nice, stocky Strawberry plants. If you are interested in large numbers of plants, or in our pack-out service (whereby shipments are made direct to your customers, under your tags), write for details. We are facilitated to take care of your Strawberry plant business. Let us figure with you on your particular requirements.

STANDARD VARIETIES:	Per 25	Per 100	Per 250	Per 1000
Blakemore, Dunlap, Missionary.....	\$0.40	\$1.25	\$2.25	\$8.00
Klondyke, Majestic, Massey, Maytime, Swane.....	.45	1.40	2.50	9.00
Ambrosia Late, Big Joe, Catskill, Chesapeake, Dorsett, Fairfax, Fairpeake, Gandy, Lupton Late, Midland, Parsons Beauty, Premier, Redstar, Robinson, Starbright, Southland, Temple.....	.50	1.50	2.75	10.00
EVERBEARING VARIETIES:				
Gem, Lucky Strike, Mastodon, Evermore (Minn. 1166).....	.75	2.50	5.00	18.00
Gemzeta.....	1.00	3.25	7.00	25.00

No extra charge is made for the package or packing on Strawberry plant orders.

Prices quoted are for delivery October 15, 1945, to June 1, 1946, and apply as follows:
 25 to 75 plants of one variety at the 25 rate.
 100 to 225 plants of one variety at the 100 rate.
 250 to 475 plants of one variety at the 250 rate.
 500 plants or more of one variety at the 1000 rate.

ASPARGUS ROOTS

Our Asparagus roots have made a particularly good growth this season. We are the largest growers of Asparagus roots in the country. Write for special prices on large numbers.

	Per 25	Per 100	Per 250	Per 1000
Mary Washington.....	\$1.25	\$4.00	\$8.75	\$30.00
3-year, No. 1 grade.....	.75	2.50	5.25	18.00
2-year, No. 1 grade.....	.60	2.00	4.00	12.00

BUNTINGS' NURSERIES, INC.

GRAPEVINES

Grapevines are another specialty with us. Our Grapes have heavy fibrous root systems, with many lengthy canes at the top. Write us for prices on large numbers.

	Each	Per 10	Per 100
Concord (Blue), 2-yr., No. 1.....	\$0.25	\$1.75	\$14.00
Concord (Blue), 1-yr., No. 1.....	.30	1.50	10.00
Catawba (Mahogany), Fredonia (Black), Moore's Diamond (White), Moore's Early (Black), Niagara (White), Portland (White), Worden (Black), 2-yr., No. 1.....	.30	2.25	17.00
1-yr., No. 1.....	.25	1.75	12.00
Agawam (Red), Brighton (Red), Caco (Red), Delaware (Red), 2-yr., No. 1.....	.35	2.50	20.00
1-yr., No. 1.....	.30	2.25	15.00

CANNAS

Carefully grown under our personal supervision, they are true to name, liberally graded, 2 to 5-eye strong divisions, and will please the most exacting type of customer. Write for prices on large numbers, giving a list of your anticipated requirements. Our trade list carries descriptions on the various varieties.

	Per 100	Per 1000
Allemania, Ambassador, California, Charles Henderson, Egandale, Firebird, Florence Vaughan, Golden Gate, Hungaria, Indiana, Kate Grey, Louisiana, Madam Crozy, Pennsylvania, Richard Wallace, Shenandoah, Uncle Sam, Wintzer's Colossal, Yellow King Humbert, Wyoming.....	\$7.00	\$55.00
Copper Giant, Red King Humbert, King Midas, Louise Cayeux, President.....	8.00	60.00

All quotations are F.O.B. Selbyville, subject to stock being sold upon receipt of order. Free packing for cash with order on Asparagus, Grapes and Cannas.

Our Fall 1945 Wholesale List is now ready for distribution, offering a complete line of stock, including fruit trees, small fruit plants, garden roots, evergreens, shrubs, shade trees, bulbs, etc. Write for a copy if you are not on our mailing list. Please use your printed stationery when requesting wholesale prices.

Box 3
SELBYVILLE, DELAWARE

URGES ORCHARD PLANTING.

Calling attention to the fact that the 1945 apple crop was the smallest on record for the nation and the crop in Kansas about thirty per cent of normal, George W. Kinkead, secretary of the Kansas State Horticultural Society, wrote in a recent bulletin to members: "It is my judgment that the coming year will be an ideal time to plant the young orchard, since subsoil moisture is abundant. Also new insecticides, new fungicides and better or improved varieties are bound to bring about great changes and improvements. Trees planted next spring will come into production from five to eight years, when competition will be moderate and people as a whole will be hungry for fruit. Citrus fruits today are plentiful and the price is quite reasonable, but the public is crying for apples—good apples. People are hungry for apples. The apple will remain the king of fruits for years to come. Nursery stock is high, but not too high if one considers the value of the tree at 5 to 25 years old."

ROBERTS NURSERIES, formerly at Englewood, Colo., is now doing business at Littleton, Colo.

CLEARING OUT OLD BLOCKS?

We buy
in 12-ft. lengths
Chestnut, Beech.

What have you?

VARSITY LANDSCAPE SERVICE
La Fayette, Ind.

"NURSERYMEN HAVE A LONG WAY TO GO BEFORE SATURATING THE MARKET IN MAKING AMERICA MORE BEAUTIFUL."

(Michigan Nurserymen's Meeting).

Fill your salesyard and warehouse with Verhalen choice nursery stock.

Wholesale Only.

VERHALEN NURSERY COMPANY
Scottsville, Texas

AMPELOPSIS VEITCHI

	Per 10	Per 100	Per 1000
2-year, medium.....	\$3.50	\$25.00	\$225.00
2-year, No. 1.....	4.00	30.00	275.00

FAIRVIEW EVERGREEN NURSERIES
Fairview, Pa.

SHADE TREES

	Per 100
Green Ash, 6 to 8 ft.....	\$55.00
Green Ash, 8 to 10 ft.....	75.00
Green Ash, 10 to 12 ft.....	85.00
Green Ash, 1½ to 2-in. cal..	110.00
Green Ash, 2 to 2½-in. cal..	130.00
Green Ash, 2½ to 3-in. cal..	160.00
White Elm, 1¼ to 1½-in. cal..	100.00
White Elm, 1½ to 2-in. cal..	170.00
White Elm, 2 to 2½-in. cal..	225.00
White Elm, 2½ to 3-in. cal..	300.00
Hackberry, 8 to 10 ft.....	80.00
Hackberry, 10 to 12 ft.....	100.00
Hackberry, 1½ to 2-in. cal..	130.00
Hackberry, 2 to 2½-in. cal..	170.00
Pin Oak, 5 to 6 ft.....	115.00
Pin Oak, 6 to 8 ft.....	140.00
Pin Oak, 1¼ to 1½-in. cal..	100.00
Pin Oak, 1½ to 2-in. cal....	215.00
Pin Oak, 2 to 2½-in. cal....	260.00

We can supply the above listed varieties in good quantities. We also have other shades and various sizes in limited quantity. Send us your shade tree want list for special carload quotations.

SHERMAN NURSERY CO.
Charles City, Iowa.

SMALL FRUIT PLANTS

Grapes, Currants and Raspberries—our specialty.

Hydrangea P. G.
FOSTER NURSERY CO., INC.
69 Orchard St. Fredonia, N. Y.

Plant Notes Here and There

By C. W. Wood

Since writing the note on the mullein, *Verbascum pannosum*, in these columns some time ago, I have found some references to the plant by Turrill in the *Gardeners' Chronicle* (London) of February 27, 1937, which sheds some light on several phases of the plant. I am tempted, therefore, to use a little space to bring matters in clearer focus.

You will recall that I remarked on the great dissimilarity of *Verbascum pannosum* and *V. longifolium*, of which many botanists, including Bailey in *Hortus*, makes it a variety. Turrill has this to say on that point: "The material grown at Kew differs strikingly from authenticated Italian material of *V. longifolium*, preserved in the Herbarium, and it seems best for horticultural purposes to retain the species distinct, at least until other than gross morphological data are available."

That is of less importance to us as gardeners, however, than the differences in growth and habits of the two plants. The rather wide distribution of the one we are now considering as *V. pannosum* explains the reaction of different selections to cold. Thus, seeds which I had from Correvon about twenty years ago (presumably from Albania, as I recall it) produced plants which were unable to stand our winters. Years later I had seeds from Dr. Lempberg from Bulgarian stock which were thoroughly reliable. One should be sure, then, where his stock comes from, especially if he lives in a cold section.

Both *longifolium* and our present plant are generally considered to be perennials, but they are not always so, for often we find plants that are unable to produce the side shoots at the base of the main stem, which seems to be the only way a mullein has of prolonging its life after flowering. Many of them (a large majority in my trials) are true perennials, though, and that adds much to their value as garden plants.

But that is not all their good points. They make, for instance, one of the loveliest rosettes of white woolly leaves that I know—rosettes which for size (three feet or more across) alone are worth growing. Everything about the plants, from their stature of five or six feet under ordinary culture (Turrill records a 7-foot plant and I saw one at least eight feet tall in a southern Michigan gar-

den, where the soil had been trenched) to their large (more than an inch across), brilliant yellow flowers, is on the spectacular side. They are plants of more than ordinary landscape value, in my opinion, and as such will bear investigation.

North African Plants.

Few north African plants, except some from the higher places in the Great Atlas range, can be trusted in the open in north Michigan; so I can say little about them as outdoor plants. I should like, however, to direct attention of growers south of the Ohio to that region as a happy hunting ground for unusual material of great merit. While our troops were in Africa, a friend in the army sent me several parcels of seeds which gave me more pleasure than any other garden adventure for a long time. Among them, for instance, was a prostrate linaria of cartwheel growth and lovely rosy-lavender flowers from soon after the passing of snow until it came again. Another, which I took to be *Arabis erubescens*, would make a grand garden plant where hardy. It made pretty glaucous bushes to ten inches in height, with an attractive showing of lavender-lilac cross flowers for a month or more in spring. In fact cross flowers, especially in *arabis*, *draba* and *erysimum*, seemed to be predominant, but the composites in *anacyclus* and *chrysanthemum* (*leucanthemum*) were plentiful and often lovely. I have distributed seeds of the fruitful kinds among friends in the trade and hope some may eventually reach the market. It will pay you, too, if you are on the search for the unusual, to watch European lists after growers there get back on their feet, because the war is going to give an impetus to plant introduction.

Mesembryanthemum Blandum.

A few years ago mention of the succulent, *Mesembryanthemum blandum*, which the "splitters" tell us should be *Lampranthus blandus*, in a western dealers' seed list prompted me to try it, even though I knew it would not be hardy in my climate. The adventure was not disappointing in any way, because, though the plant proved not hardy, it was so easily handled through the winter in a protected frame that it was almost as desirable as a hardy perennial. I have no idea how much frost

it can stand, but I should expect it to be hardy south of St. Louis. Wherever it can be used without too much trouble, it would make a splendid addition to the list of summer-flowering plants. For instance, reference to my notes tells me that cuttings struck in August, wintered in a frame and planted out the following June were in continuous flower from then until well along in September.

Although the books give it a stature of two feet, it did not exceed a foot here, and more often than not the stems were quite prostrate, with two-edged branchlets bearing triangular succulent leaves and terminating in large (two inches across) rose-colored flowers, superficially like an annual aster. Like others of its kind, it requires a dry soil in full sun, such as a dry wall. If used for edgings in heavy soil, I suspect that drainage should be provided.

Using Columbines.

I visited a nursery last summer where hundreds of columbine plants were being rooted out "to make room for something that sells," according to the owner. It made me wonder. A few hours later I saw a garden which he or one of his competitors had revamped the preceding spring, and in it was a shrub border with space for most of the columbines he was throwing away. That made me wonder still more. And I am still wondering why columbines are not more often seen correctly used.

According to my way of thinking, columbines, whether they be the staid permanent *Aquilegia vulgaris* or the ephemeral *A. caerulea* and its derivatives, are subjects for generous use. If that is correct, no wonder gardeners are seldom enthusiastic about one or two plants. I used to visit a garden every year just to see the planting of columbines, largely self-reproducing after the initial planting, in a long shrub border in which literally thousands of plants made merry. And when I visit gardens where practically nothing has been made of these situations, an opinion is confirmed which I formed years ago, that the difference between a good gardener and a poor one lies in the uses he makes of odd places.

It matters not where columbines are used, they should be planted generously. They are ideal for undercover in open woods or in the home orchard. In the smaller gardens they

are perhaps best in shrub borders, where they get some shade, but they do well in full sun. Years ago I had a 20x20-foot area on a south slope that was carpeted with self-sown seedlings over a long period. It would probably be there yet had not quack grass overrun the place.

Columbines are one of the most felicitous companions in iris plantings, helping to make the iris a real landscape plant instead of the eyesore it often is. I have also seen them used with gladioli to good advantage. Although I have an abiding love for the gladiolus flower, it is one plant that leaves me cold when used as a landscape ornament, and it is only by combining gladioli with columbines, thalictrums, heucheras and other graceful subjects that I can look at them at all.

Corydalis Angustifolia.

With the return of peace and the access it will again give to foreign seed lists, I am prompted to say a few words in praise of the little Caucasian fumitory, *Corydalis angustifolia*. Like other tuberous-rooted kinds, its impatience to get started on its work in spring will endear it to gardeners who are also eager for the opening of the garden year. And its culture in a partly shaded nook in fairly moist soil will make it one's constant companion. Reference to my notes makes me think that it was not entirely hardy here, but of that I cannot be sure, for it has been too long for an old head to remember. Most Caucasian plants are, however, quite hardy here and should be in all except the coldest sections. I should add, too, that it did best here in a leafy soil.

Everything about the plant from its divided glaucous leaves to the loose sprays of long-spurred fumitory flowers, flesh to creamy-white (usually the latter) or rarely purple, so it is reported, though I do not recall that color in my trials, is attractive. Add to all that a flowering period of more than a month in early spring and you have an exciting plant.

Alyssum Spinosum.

Generally speaking, I am not particularly fond of alyssums. With a few exceptions, they are too weedy and often too brassy in color to find favor with discriminating gardeners. Neither of these objections, nor any other that I can see, can be made against *A. spinosum*. The color of the type, as you probably know, is white or pale pink, and there is also a variety roseum which is a pleasing pink.

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2-Yr. Apple, $\frac{7}{16}$ -in. and $\frac{5}{16}$ -in.
(Complete variety assortment.)

SMALL FRUITS AND MISCELLANEOUS

Concord, 2-1, 2-2
Delaware, 1-1

Fredonia, 2-1, 2-2
Dewberry, No. 1

Horse-radish crowns and cuttings.

FOREST TREE SEEDLINGS

Green Ash, 6 to 12 ins. and 12 to 18 ins.
Catalpa, 12 to 18 ins. and 18 to 24 in.
American Elm, 6 to 12 ins. and 12 to 18 ins.
Honey Locust, 12 to 18 ins., 18 to 24 ins. and 2 to 3 ft. (thornless)
Osage Orange, 12 to 18 ins., 18 to 24 ins. and 2 to 3 ft.
Walnut, Black, 12 to 18 ins. and 18 to 24 ins.

SHADE TREES

Ash, Green, 4 to 5 ft., 5 to 6 ft., 6 to 8 ft. and 8 to 10 ft.
Elm, American, 5 to 6 ft. and 6 to 8 ft.
Elm, Lake City, 5 to 6 ft. and 6 to 8 ft.
Elm, Moline, 4 to 5 ft., 5 to 6 ft. and 6 to 8 ft.
Elm, Vase, 5 to 6 ft. and 6 to 8 ft.
Hackberry, 5 to 6 ft., 6 to 8 ft. and 8 to 10 ft.
Linden, American, 6 to 8 ft., 8 to 10 ft. and $1\frac{1}{2}$ in. to 2-in.
Maple, Ginnale, 2 to 3 ft. and 3 to 4 ft.
Maple, Norway, $1\frac{1}{2}$ to 2-in. and 2 to $2\frac{1}{2}$ -in.
Mountain Ash, European, 4 to 5 ft., 5 to 6 ft., 6 to 8 ft. and 8 to 10 ft.
Oak, Pin, 6 to 8 ft., 8 to 10 ft., $1\frac{1}{2}$ to 2-in. and 2 to $2\frac{1}{2}$ -in.

SHRUBS

Amorpha Fruticosa, 12 to 18 ins., 18 to 24 ins. and 2 to 3 ft.
Cydonia Japonica, 12 to 18 ins. and 2 to 3 ft.
Deutzia Lemoinei, 12 to 15 ins. and 15 to 18 ins.
Euonymus Alatus, 12 to 18 ins. and 3 to 4 ft.
Hydrangea P. G., 18 to 24 ins., 2 to 3 ft. and 3 to $3\frac{1}{2}$ ft.
Philadelphus Bouquet Blanc, 12 to 18 ins. and 18 to 24 ins.
Philadelphus Coronarius, 12 to 18 ins. and 18 to 24 ins.
Philadelphus Lemoinei, 12 to 18 ins. and 18 to 24 ins.
Physocarpus Opulifolius, 12 to 18 ins., 2 to 3 ft. and 3 to 4 ft.
Physocarpus Opulifolius Nanus, 2 to 3 ft. and 3 to 4 ft.
Privet, Ibolium, 12 to 18 ins. and 18 to 24 ins.
Privet, Regel, 18 to 24 ins.
Rhus Typhina Laciniata (C.L.), 12 to 18 ins., 18 to 24 ins., 2 to 3 ft. and 3 to 4 ft.
Rhus Glabra (smooth), 12 to 18 ins. and 18 to 24 ins.
Symphoricarpos Vulgaris, 12 to 18 ins., 18 to 24 ins. and 2 to 3 ft.
Viburnum Americanum, 12 to 18 ins., 18 to 24 ins. and 2 to 3 ft.
Viburnum Dentatum, 12 to 18 ins., 18 to 24 ins. and 2 to 3 ft.

CANNAS

The President, Wintzer's Colossal and Yellow King Humbert

LAKE'S SHENANDOAH NURSERIES
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And it would be difficult to find a plant with fewer weedy characteristics. In fact, it does not make seeds at all in my garden, or if it does I never have been able to find them, and cuttings have always, until lately, been rather disappointing in their behavior. It was that phase of the plant, incidentally, that prompted this note.

We are told in the books to make cuttings of new growths of woody alyssums soon after the flowering season. That is quite all right in most cases, but it does not work well for me in the case of *spinosum*. Experiments made here of taking cuttings at various times of the year show the following results: Spring and summer cuttings do not root over ten per cent; cuttings made in September and inserted in an outdoor sand bed to remain there through the winter have rooted eighty per cent and better at times. I have also had quite good results from cuttings of softwood taken in winter from gently forced plants in a cool house.

Hardy Primulas from Seeds.

Correspondence with growers tells me that one reason more hardy primulas are not grown is because of the uncertainty between the planting of the seeds and the hoped-for flowering of the plants. I do not offer it as the best of all schedules, but the following gives me gratifying results in most cases. Seeds, preferably fresh, are planted in flats or pots of light soil any time from early fall and midwinter. These are placed in a cool house, kept uniformly moist and shaded from direct sun until germination takes place. They should not have much heat, even after germination, if soft growths and consequent disaster are to be avoided. When large enough to handle, the seedlings are pricked out into flats to get them ready for the transplanting to open shaded frames when suitable weather arrives.

Salvia Patens.

If my observation is correct, *Salvia patens*, one of our loveliest blue-flowered plants, is catching the public eye more and more each year. That is good in several ways for the commercial plant grower, though principally because of the yearly demand for the plants, which arises from the fact that gardeners seldom store the roots away from frost. In case you want to increase your stock rapidly, you will find cuttings a ready means.

Roots which were stored away from frost last fall should be brought

into fairly brisk heat in February. After growth commences, an abundance of moisture should be given. Such treatment should soon produce plenty of fresh succulent growths, which may be taken when they are about three inches in length. The container to use for cuttings will depend upon the number to be handled. If only a few are needed, they may be inserted around the edges of pots of sand or a sandy compost; if large numbers are wanted, they are easier handled in deep flats—deep enough to permit a pane of glass to be placed over the flat to secure the close atmosphere needed for rapid and sure rooting. The pots may be put in a close propagating case. In any event, a warm house is needed for best results.

Water Lilies.

A correspondent asks for some remarks on the propagation of water lilies, especially *nymphaeas*. As I do not know enough about the subject to attempt an answer, I am giving the directions supplied me by a specialist, thinking that the information on these plants of ever-increasing popularity will interest others.

When seeds are to be used, they must be kept moist at all times from ripening to germination. Hardy kinds should be planted as soon as ripe, and even then they may take six to eight months to germinate; tender kinds may be planted in midwinter and should come up within two weeks if given brisk heat. A surer method and one that must be used

for named varieties is division. The eyes are scooped out of the old plant, usually in May, potted up and put in shallow water indoors. By late June these are ready to be put in tanks in an unheated house. Tanks may be made any convenient size, most commercial growers preferring a width about five feet. The depth of tanks is governed by the kinds grown, but two feet seems to be standard. A good growing medium is made by putting an inch layer of cow manure, preferably a year old, on the bottom of the tank, over which are placed six inches of loam.

COLORADO CHAPTER MEETS.

The Colorado chapter of the American Association of Nurserymen met November 20 at the offices of the Wilmore Nurseries, Wheat Ridge, to elect a delegate to the board of governors meeting to be held at Chicago January 17.

Most of the evening was spent discussing in detail the recommendations of the A. A. N. public relations committee. In general there was hearty agreement with the program outlined. It was felt, however, that the sixty per cent assessment was aiming rather high. There was considerable doubt expressed that it was possible for anyone to write such things as planting instructions that would be appropriate for all sections of the United States. Especially in the Rocky mountain regions are many of the general directions most

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inapplicable. It was suggested that we avail ourselves of all general helps supplied by the committee, but that we must supply regional information in addition. The best way would probably be through some outside and impartial organization, such as the Colorado Forestry and Horticultural Association. It was suggested that the Colorado nurserymen get behind this organization and supply needed information and instructions for publication in the association's magazine, The Green Thumb, and then supply these magazines to customers.

Tentative plans were discussed for a nurserymen's short course in early spring.

The weather this fall has been favorable for work, and all nurseries have had much more to do than could be handled with available labor. Some indications of a slight easing of the labor situation were seen.

George W. Kelly.

EXPLAINS STOCK SCARCITY.

The leading article in the November issue of the American Fruit Grower was contributed by Albert F. Meehan, as secretary of the Wholesale Fruit Tree Growers' Association, explaining the shortage of fruit trees available for planting on the farm and in commercial orchards in recent years. He predicts that shortage will continue for several years.

Reasons for the shortage, explained Mr. Meehan, were lack of seeds to produce fruit tree stocks, shortage of skilled labor for budding, inadequate substitute for natural rubber bud ties, weather conditions and the heavy demand created by the government's urging the planting of fruit crops.

ORIENTAL FRUIT MOTH.

While the state of California recently revoked both its intrastate and interstate quarantines on account of the Oriental fruit moth, not only has Colorado maintained its quarantines, but Arizona a month ago revised its quarantine to include counties of several western states, in addition to thirty-one whole states and the District of Columbia.

BECAUSE of the illness of Mr. Kruger, the entire stock of perennials of the Kruger Perennial Nursery, Dassel, Minn., has been sold to Mr. and Mrs. Fred Engstrom, who have recently received their license to operate a perennial nursery at Hutchinson, Minn.

LINING-OUT STOCK

Here are a few items available in tree seedlings and shrubs for winter and spring shipment. Write for copy of our wholesale catalog for other items you may want.

ACER DASYCARPUM.

Silver Maple.

	Per 100	Per 1000
4 to 6 ins., s.....	\$0.75	\$ 5.00
6 to 12 ins., s.....	1.00	8.00
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Varieties:

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Bicolor. Swamp White Oak.		
6 to 12 ins., s.....	1.25	10.00
12 to 18 ins., s.....	2.00	15.00
18 to 24 ins., s.....	2.50	20.00

CERCIS CANADENSIS.

Redbud.

4 to 6 ins., s.....	1.50	10.00
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12 to 18 ins., s.....	2.50	20.00

LIRODENDRON TULIPI.

FERA. Tulip Tree.

4 to 6 ins., s.....	1.00	7.50
6 to 12 ins., s.....	1.25	10.00
12 to 18 ins., s.....	1.50	12.00
18 to 20 ins., s.....	2.00	15.00
2 to 3 ft., s.....	2.50	20.00
3 to 4 ft., s.....	4.00	35.00

AESCULUS OCTANDRA.

Yellow Buckeye.

12 to 18 ins., s.....	2.00	15.00
18 to 24 ins., s.....	2.50	20.00
2 to 3 ft., s.....	3.50	30.00

ALTHAEA HIBISCUS.

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6 to 12 ins., s.....	1.00	7.00
12 to 18 ins., s.....	1.50	10.00
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CYDONIA JAPONICA.

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Nice strong seedlings.		
6 to 12 ins., s.....	2.00	15.00
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Common Witchhazel.

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2 to 3 ft., s.....	6.00	50.00
3 to 4 ft., s.....	7.00	60.00

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6 to 12 ins., s.....	1.00	8.00
12 to 18 ins., s.....	1.50	12.00

MELIA UMBRACULIFORMIS.

Texas Umbrella Tree.

6 to 12 ins., s.....	1.50	12.50
12 to 18 ins., s.....	2.00	15.00
18 to 24 ins., s.....	2.50	20.00

JUGLANS NIGRA.

Black Walnut.

4 to 6 ins., s.....	2.00	15.00
6 to 12 ins., s.....	3.00	20.00
12 to 18 ins., s.....	4.00	30.00

SYMPHORICARPOS VULGARIS. Coralberry.

L.O., grade, c.....	2.00	15.00
6 to 12 ins., c.....	2.50	20.00
12 to 18 ins., c.....	3.00	25.00

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Coming Events

MEETING CALENDAR.

For the benefit of state association officers who wish to set the time of midwinter meetings with the minimum of conflict, the following list is given of meeting dates already made known. Secretaries of other associations are invited to notify the editor of further meeting dates as they are set.

January 2 to 4, 1946, Indiana State Nurserymen's Association, Purdue University, West La Fayette, Ind.

January 3, Missouri State Nurserymen's Association, Hotel Muehlebach, Kansas City.

January 3 and 4, Western Association of Nurserymen, Hotel Muehlebach, Kansas City, Mo.

January 8, Massachusetts Nurserymen's Association, Hotel Kenmore, Boston.

January 9, Long Island Nurserymen's Association, Stockholm restaurant, Syosset, L. I.

January 11 and 12, Iowa Nurserymen's Association, Hotel Kirkwood, Des Moines.

January 13 and 14, executive committee meeting, American Association of Nurserymen, Hotel La Salle, Chicago.

January 15 and 16, National Landscape Nurserymen's Association, Hotel La Salle, Chicago.

January 15 to 17, Illinois State Nurserymen's Association, Hotel La Salle, Chicago.

January 17, board of governors' meeting, A. A. N., Hotel La Salle, Chicago.

January 21 and 22, New England Nurserymen's Association, Hotel Statler, Boston, Mass.

January 21 to 23, short course for arborists, landscape gardeners and nurserymen, Ohio State University, Columbus.

January 23, New Jersey Association of Nurserymen, War Memorial building, Trenton.

January 24 and 25, Ohio Nurserymen's Association, Neil House, Columbus.

January 25 and 26, New York State Nurserymen's Association, New York.

January 30, Oregon Association of Nurserymen, Heathman hotel, Portland.

January 31 and February 1, Michigan Association of Nurserymen, Fort Shelby hotel, Detroit.

February 5 and 6, Kentucky Nurserymen's Association, Lafayette hotel, Lexington.

February 6 and 7, Virginia Nurserymen's Association, John Marshall hotel, Richmond.

PLAN CHICAGO PROGRAM.

Several outstanding speakers will appear on the program of the annual meeting of the Illinois State Nurserymen's Association, to be held at the La Salle hotel, Chicago, January 15 to 17. In conjunction with will be held a meeting of the National Landscape Nurserymen's Association and a display of the plans entered in the contest for design of a nursery salesyard, after the prize-winners have been decided by the judges January 14. The third day of the meeting, January 17, will be devoted to a meeting of the board of governors

of the American Association of Nurserymen, to consider the proposed public relations program and other important business.

Completion of the program was reached at a meeting of the directors of the Illinois State Nurserymen's Association, December 7, which was attended by R. P. White, A. A. N. executive secretary, and Harold E. Hunziker, secretary of the National Landscape Nurserymen's Association.

The display of forty-five design plans for a nursery salesyard will be a great drawing card for retail nurserymen, for a variety of subjects have been entered and the type of yard designed ranges from the economical to the elaborate.

The first session of the Illinois convention will open at 1:30 p. m., Tuesday, January 15, with the address of the president, Elmer Palmgren.

Arthur H. Hill, A. A. N. president, will introduce John W. Baringer, who takes office January 1 as director of research for the national association. Richard P. White, A. A. N. executive secretary, will offer the answer to the question "Where Do We Go from Here?"

L. Morgan Yost, prominent midwest architect, will speak on "New Trends in Locating and Building Homes." He is a practicing residential architect on the north side of Chicago and well abreast of changes in home architectural styles.

M. J. Brown, Jr., purchasing agent of Johnson & Johnson, Inc., Chicago,

will speak on "The Development and Landscaping of Industrial Areas." The factory of his firm in the Clearing industrial district is an example of his subject, one in which Mr. Brown is thoroughly interested.

Preceding the opening of the Illinois convention, the National Landscape Nurserymen's Association will hold a business meeting Tuesday morning and hear a talk by Milford R. Lawrence, Cape Cod Nurseries, Falmouth, Mass., on "Toward a Fuller Year of Landscape Operations." He will tell how work may be spread throughout the year by nursery practices well tried out.

Wednesday morning, January 16, will be held a business meeting for only members of the Illinois association.

Following luncheon on Wednesday, C. E. (Dinty) Moore, Grand Rapids, Mich., will speak on "Choosing and Training Men for Selling." He is a forceful speaker and an expert in his subject.

Prof. Joseph P. Porter, of Cornell University, Ithaca, N. Y., will speak on the subject, "Solving the Problem of Landscaping Small Properties." Professor Porter has been a repeat speaker on this subject before eastern associations, and he contributed a number of articles on landscape design to the columns of the American Nurseryman until wartime interrupted.

The A. A. N. board of governors meeting will occupy both morning and afternoon sessions, Thursday, January 17.

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4 to 5 ft., trans.....	13.50
5 to 6 ft., trans.....	20.00
6 to 8 ft., trans.....	45.00
8 to 8 ft., 1/2 to 1-in. cal., whip, per 100,	\$75.00.
8 to 10 ft., 1/2 to 1-in. cal., well	
branched, per 10, \$10.00; per 100, \$85.00.	
10 ft., 1 to 1 1/2-in. cal., well branched, per 10,	\$12.50; per 100, \$100.00; 1 1/2 to 1 3/4-in. cal., (in
the ground), ea., \$1.50, plus 25¢ dug bare root;	
1 3/4 to 1 1/2-in. cal. (in the ground), ea., \$2.00,	
plus 35¢ dug bare root; 2 to 2-in. cal. (in the	
ground), ea., \$2.25, plus 40¢ dug bare root.	
Free balling with cash with order. 25 per cent	
cash with order, balance before shipment. All	
trees are Jap Beetle Quarantine Inspected.	

STATE ROAD NURSERY
State and Sprout Rds., R. 1 Media, Pa.

"A friendly, efficient sales service"

**E. D. ROBINSON
SALES AGENCY**
So. Elm St. P. O. Box 285
WALLINGFORD, CONN.

Representing

Adams Nursery, Inc.
Bristol Nurseries, Inc.
Barnes Brothers Nursery Co., Inc.
North-Eastern Forestry Co., Inc.
A. N. Pierson, Inc.

A complete line of well grown hardy plant material
Evergreens and Lining-out Stock

C. M. Hobbs & Sons, Inc.**BRIDGEPORT INDIANA***Established 1875.***WHITE-FLOWERING
DOGWOOD****GINKGO****NORWAY MAPLE****SOFT MAPLE****SWEET GUM****THURLOW WILLOW****WELL GROWN EVER-
GREENS, in variety.****Northern-grown Stock****Send
for
Price
List.****J. V. BAILEY NURSERIES****St. Paul 6, Minn.****BURR**Leading wholesale source for
Nursery Stock.

Send us your Want List.

C. R. BURR & CO., INC.
Manchester, Conn.We have a substantial surplus of ornamentals:
SHRUBS, SHADE AND FLOWERING TREES
*Send your Want List for quotations.***PONTIAC NURSERIES****Romeo, Mich.****SHEPARD NURSERIES***Growers and Distributors of***ORNAMENTAL NURSERY STOCK**

60 acres growing.

Skanateles, N. Y.

**Nursery Stock at
Wholesale Only.****ARTHUR DUMMETT**

Bernardville, N. J.

BURTON'S**HEADQUARTERS FOR
EVERGREEN GRAFTS, TRANSPLANTED
EVERGREENS, SHRUB LINERS.***Write!*
RARE ITEMS YOU DO NOT
FIND IN MOST LISTS!**HILLTOP NURSERIES**
EASTOWN, OHIO

Elmer Palmgren was chosen to serve as a delegate of the Illinois chapter at the A. A. N. board of governors meeting, with Ernest Kruse and Miles W. Bryant. Alternates are Victor de St. Aubin, Roy Clavey and Andrew Tures.

MASSACHUSETTS MEETING.

The thirty-seventh annual meeting of the Massachusetts Nurserymen's Association will be held Tuesday, January 8, at the Hotel Kenmore, Boston, announces Dr. C. J. Gilgut, secretary.

MISSOURI MEETING.

The Missouri State Nurserymen's Association will hold a luncheon meeting January 3 in conjunction with the 2-day meeting of the Western Association of Nurserymen at the Hotel Muehlebach, Kansas City, Mo., announces Secretary William A. Weber.

NEW ENGLAND DATES SET.

The New England Nurserymen's Association will hold its annual winter meeting January 21 and 22 at the Hotel Statler, Boston, Mass. The annual banquet will be given the evening of January 21, and the following afternoon will be devoted to the educational program. Because of the crowded hotel conditions, the usual 3-day meeting had to be cut to two days.

INDIANA PROGRAM.

The 3-day winter meeting of the Indiana Association of Nurserymen will be opened by President Devol Ernst, January 2, at 1 p. m., in the east faculty lounge of the Purdue Union building.

Following a message of welcome by F. L. Hovde, president of the university, members of the staff of the Indiana Nut Nursery will talk on "Nut Trees for Indiana." The remainder of the program will be devoted to panel discussions. There will be a comprehensive discussion of state and federal taxes by authorities on the subject. "Perennials" will be the subject of Ben See, Martinsville; I. J. Mathews, Gary; A. B. Cunningham, Waldron; A. W. Fox, Elkhart; Clarence Wesdorp, Middlebury, and a Purdue faculty member. Under the heading "Supply of Stock Available," William Smart, of D. Hill Nursery Co., will talk on the evergreen supply; Harry Hobbs, of C. M. Hobbs & Sons, Inc., fruit; Jess Ireland, of Onarga Nursery, shrubs

[Continued on page 44.]



Growers of a complete
line of deciduous and
coniferous species.

JEWELL NURSERIES, INC.

Lake City, Minn.

Evergreens**Barberry****Privet**

Write for wholesale price list.

GARDNER'S NURSERIES

Rocky Hill, Conn.

HEMLOCKS**KALMIA, RHODODENDRON, AZALEA****CURTIS NURSERIES****CALLICOON NEW YORK***Wholesale growers of the best
Ornamental Evergreens,
Deciduous Trees,
Shrubs and Roses.*

Write for our current trade list.

THE KALLAY BROTHERS CO.
Painesville, Ohio**EVERGREEN LINERS**Taxus, many varieties.
Seedlings and transplants.
Ask for our latest price list.**HEASLEY'S NURSERIES**

Freeport Road, Butler, Pa.

*Book orders early.***SPECIMEN EVERGREENS****SNEED NURSERY COMPANY**

P. O. Box 790

Oklahoma City, Okla.

New Products and Personnel

PACKAGED COLDFRAME.

A new prefabricated coldframe utilizing Vimlite plastic glazing, Fiberglas insulation and 22-gauge steel in place of wood, complete in a single compact package ready for assembly within ten minutes with only a screw driver and pliers, has been developed by Celanese Plastics Corp., in cooperation with Green Thumb, Inc., which will produce and market it. Under the name Green Thumb seedbed, the frames are to be sold through hardware jobbers and other channels. The frames will retail for approximately \$16.50.

Measuring 3x6 feet, the 22-gauge steel frame is dip coated and overcoated with green paint to form an excellent rust inhibitor. The seedbed cover is formed by two 36-inch square panels, hinged at the back of the frame and glazed with Vimlite. These panels are formed by L angles of the same gauge steel and are designed to shed water. The Vimlite used for glazing the frame is the regular standard 12x12-mesh galvanized wire coated with cellulose plastic which is widely used for poultry house glazing and which admits ultraviolet and infrared rays and forms an excellent insulating medium. The frames are lightweight, easy to handle and easily detachable. Vimlite is lighter in weight than glass, hailproof, shatterproof and virtually weatherproof. The insides of the upright sections, twelve inches in front and eighteen inches in back, are insulated with one-half inch of Fiberglas applied after assembly by means

of a waterproof adhesive. This extends from the top of the frame to within three inches of the bottom and is said to have insulation value equivalent to one and one-half inches of dry white pine. The cor-



Laminite Tree Guard.

ners of the frame are fitted with lugs for anchoring the frame to stakes. Packed for shipment, knocked-down, including the sixteen bolts used in assembling it, the coldframe weighs about forty-five pounds and the containers measure approximately 4x36x72 inches.

OFFER TREE GUARD.

As a quick, easy and economical method of protecting the tender bark of young fruit and shade trees, a new Laminite tree guard is being offered by Laminite Products, a division of Old King Cole, Inc., Canton, O. This guard gives protection against rabbits and other bark-eating animals, even in deep snow. The Laminite can also be pushed into the ground around the tree, giving added protection against soil insects.

The Laminite guard is a strong, curled fiber sheet, chemically impregnated to withstand all kinds of weather conditions and to resist insect attack. The guard is a hard, tough material. When unrolled, it snaps back to the tight curled position with a strong, springlike action. No tying or binding is necessary to hold the tree guards permanently in place. They lock securely into position.

This guard will fit any young tree up to three inches in diameter. As the tree grows, the guard expands.

The Laminite is installed in two seconds and all fear of damage to the trunk's bark is banished. A large young orchard can be given this protection in the matter of a few hours.

The standard coil comes twenty-four inches in height and two inches in diameter, tightly curled. If the lowest branches are less than two feet from the ground, the guard can be easily cut to fit. Other sizes can be supplied as protection for smaller shrubbery, vines, etc.

Laminite tree guards have been tested and found satisfactory by Cornell University testing laboratories. Extensive tests are also being made at the Ohio agricultural experiment station, Wooster.

STAUFFER DUSTER CHANGE.

R. C. Hudson, president of the H. D. Hudson Mfg. Co., Chicago, announces acquisition by his organization of all production facilities for the manufacture of the Stauffer knapsack duster, formerly a competitive item. This move is another step in rounding out the line of Hudson sprayers and dusters.

Originally a type imported from Europe, the Stauffer duster subsequently was developed and field tested by the Nico-Dust Mfg. Division of Stauffer Chemical Co.

Deliveries of Hudson Stauffer knapsack duster are expected to start in February, 1946. Manufacturing and distribution plans supported by aggressive advertising and merchandising have been greatly expanded



Clarke I. Wilson.



A. A. Glatz.

**The lovely
Yellow
Rose**



**V for Victory
and other
SUB-ZERO HYBRID TEAS**

Large and beautiful as any.
Easy to grow and long to live.
Save replacement expense.
Also Yellow and Orange Climbers.

Write for trade prices to

BROWNELL ROSES
LITTLE COMPTON, R. I.

Rhodos
BOTH NATIVE
AND NURSERY GROWN
KALMIA AZALEAS
Hemlocks AND Pieris
La Bars'
STROUDSBURG PA.

SURPLUS OFFER

Sugar Maple, 6 to 8 ft. and 8 to 10 ft.
American Elm, 1 1/4-in. up to 2-in.
Vase Elm, 1-in. up to 2 1/4-in.
Moline Elm, 1-in. to 2 1/2-in.
American Ash, 1 1/2-in. to 3 1/2-in.
Willow, Golden, Laurel and White,
2 to 4 ft.
Tartarian Honeysuckle, red and
pink, 3 to 4 ft.
Latham Raspberries, No. 1 and No. 2

Cashman Nurseries, Inc.
Owatonna, Minn.

Old English BOXWOOD

(Wholesale Only)
All slow-grown dense specimens. Red clay soil.
Priced by height and spread. 18x12 ins. to 24x22
ins. in unlimited quantities. Also large specimens
up to 5 ft. Write for price list.

BOXWOOD GARDENS
Mrs. R. P. Royer High Point, N. C.



EVERGREENS

Growers of Quality Evergreens
Lining-out Stock a Specialty
Write for Trade List

EVERGREEN NURSERY CO.
Established 1904 1 STURGEON BAY, WIS.

BUXUS SEMP. WELLERI

(Weller's Hardy Northern Type)
Only Boxwood proved hardy in Northern
States for Twenty Years.
Ask for our Perennial catalog.

WELLER NURSERIES CO., Inc.
Leading Perennial Growers
Holland, Mich.

for this item. Production plus national and international distribution will be directed and handled by the H. D. Hudson Mfg. Co., with the Nico-Dust Mfg. Division of Stauffer Chemical Co. continuing its established distribution activities.

ARIENS SALES MANAGER.

Clarke I. Wilson has been appointed general sales manager of the Ariens Co., Brillion, Wis., according to announcement by Mando S. Ariens, vice-president. Mr. Wilson has spent most of his business life in the field of sales and sales management and was formerly associated with General Motors Corp. in administrative and executive capacities for fifteen years. Mr. Wilson is a graduate of Northwestern University, where his studies were completed after service in World War I. Upon graduation he entered business in Chicago.

In announcing this appointment Mr. Ariens said: "Mr. Wilson will introduce and direct the amplified sales policies of the Ariens Co. Introduction of postwar models and additional lines of equipment, together with a greatly expanded production program, necessitates the enlargement of the dealer organization and the establishment of an aggressive sales policy that will bring products to users on an efficient basis."

CHASE SALES MANAGER.

R. N. Connors, vice-president and general manager of the Chase Bag Co., announces the appointment of A. A. Glatz to the position of sales manager of the Chicago sales office, as well as sales manager of the Milwaukee branch.

Mr. Glatz joined the Chase Bag Co. twenty-three years ago and has been connected with the Chicago sales office for some time, gaining a wide experience in the feed and produce fields. His headquarters will continue to be at the Chicago office.

O. M. SCOTT & SONS, growers and distributors of lawn grass seeds, Marysville, O., have joined the American Fair Trade Council, an association of manufacturers of trade-marked merchandise, who distribute some or all of their products under resale price contracts and in accordance with the fair trade laws of the various states.

IN THE nursery business since 1936, F. W. Kelley has opened Frank's Nursery at 5826 Van Nuys boulevard, Studio City, Cal.



Who offers the nursery trade of this country the greatest line of rare trees and shrubs?

What is the only wholesale nursery list that shows the hardness of each item?

Write for list 4546 and find out! But use your business stationery, as postcards will be ignored.

W. B. CLARKE & CO.
P. O. Box 343
San Jose 2, Calif.

**100,000
ROSEBUSHES**

WHOLESALE SHIPMENTS
OR
CONTRACT ENTIRE FIELD
ROW RUN.

Write for list and quotations.

OZARKS PLANT FARMS, INC.
530 S. Kimbrough Ave.
Springfield, Mo.

**SHADE TREE
TRANSPLANTS**

Per 1000

Mountain Ash, 5 to 6 ft. \$65.00
Mountain Ash, 6 to 8 ft. 85.00
White Birch, 4 to 5 ft. 50.00
White Birch, 5 to 6 ft. 65.00

ANDERSEN'S NURSERY
Scottville, Mich.

**S. A. AUGUSTE
HAERENS & SONS**

Ghent, Belgium

offer great stocks of *Azalea indica*.
New varieties a specialty. *Begonia*
and *Gloxinia*.

EVERGREENS, TREES and SHRUBS

In quantity. Truckload or carload.

Write us your requirements.

EUGENE A. DE ST. AUBIN & BRO., INC.
Box 1 Addison, Ill.

**NOVELTY PERENNIAL and
ROCK GARDEN PLANTS**

Wholesale Trade List now ready.
Send for your copy.

CARROLL GARDENS Westminster, Md.

New Grass Strains

A solution is in sight for the man struggling with the problem of maintaining the green color of his grass on large turf areas during hot summer months. On small areas with a convenient water supply it has been possible to preserve color by proper watering, but on the large areas watering is impractical. Greenness can be maintained only by growing grass resisting dryness and heat. Such grass has been found in the recently isolated strains of creeping red fescue now being introduced by F. H. Woodruff & Sons, Inc., Milford, Conn.

For years considerable work has been done with fescue for such locations because this variety is extremely hardy, particularly in northern latitudes. A solution for southern and semisouthern regions, in locations where ample water is available for the planting year, has been found in Flawn, also introduced by F. H. Woodruff & Sons, Inc. But Flawn is not suitable for latitudes with extremely severe winters. In such regions fescue has proved the most enduring variety. Fescue not only is a northern grass, but it grows on relatively poor soils, requires little moisture, stands up under traffic and withstands considerable heat.

The chief drawback to the strains of fescue hitherto available, however, has been their characteristic of turning a dull gray green during hot, dry weather. The grass survives, but loses its beauty. Although Chewings fescue is recognized as one of the mainstays of northern lawns, the work of isolating superior strains has continued steadily. Considerable progress has been made with the numerous strains of creeping red fescue.

Strange as it may seem, many of the so-called creeping reds are not truly creeping, but grow similar to Chewings. One of these is the Olds strain, which originated in Canada. The isolation of this strain is a good illustration of the painstaking labor required in isolating grasses. After plants are selected and their seeds propagated, and the new plants re-selected season after season, until permanent characteristics can finally be depended upon, the new strain will be found to have gained advantages at the cost of sacrificing desirable characteristics of the older strains. Olds is typical of such a strain, having received certification as an independent strain, but its attainments have been at the expense

of putting up with a coarse flat leaf and of losing the runners.

So the search started anew for a creeping red with rhizomes and with a typical narrow, round fescue leaf, yet a plant that would stay green in hot, dry weather. Such a true creeping red has now been isolated by the northwest district of the United States Department of Agriculture. It is called Illahee, the Indian name for paradise. It is the only creeping red certified as to strain.

The seeds of Illahee, the true certified color-holding creeping red fescue with round leaves, are now being offered commercially by F. H. Woodruff & Sons, Inc. The seeds are obtained from plants grown in rows two feet apart, with the space between the rows cultivated to keep out weeds. By this method it is possible to offer seeds certified a minimum of ninety-nine per cent pure and ninety-five per cent germination.

But for all the advantages attained with Illahee, the task of isolating other fine strains continues. Among the newer types not available commercially, but showing promise, are Ranier and an unnamed strain now simply designated as .0675. More information will be available about these strains next year, when F. H. Woodruff & Sons, Inc., puts them on display in the firm's several trial grounds.

RABBIT CONTROL.

Protection of nursery stock from damage by rabbits is a perennial problem as winter approaches.

For nurserymen, poisoning in winter and summer after a drought has made green food scarce can be one

of the most effective means of control, and it is especially helpful in gross reductions of rabbit populations. Systematic methods of hunting or trapping have been used in many locations. While such methods are time-consuming, they are often necessary when poisoning is not feasible. Basal wrappings of wire, glazed paper, burlap, etc., also afford some protections.

Several effective repellent paints have been developed in the past few years and have been used with varying degrees of success. A satisfactory repellent must give protection to both small and large trees for an entire winter season and yet not be so strong as to injure the bark tissue.

A repellent tested at the Michigan agricultural experiment station that has proved both safe on trees and effective against rabbits consists of seven pounds of pulverized rosin diluted in one gallon of alcohol. Cheaper grades of alcohol and rosin are as effective as the higher grades. Even so-called antifreeze alcohol may be used if it does not contain methyl alcohol (wood alcohol, or methanol), which does not dissolve rosin. The solution should be made in a container large enough to allow shaking and with a cover tight enough to prevent evaporation. Handled this way the rosin will dissolve in twenty-four hours. One gallon of the solution will treat 150 to 220 2-year-old trees. No heat should be applied; heating is not only dangerous, but may evaporate the alcohol and alter the composition of the mixture.

This paint repellent should be painted on the tree trunks in the fall when the bark is dry. An ordinary paintbrush can be used and the paint applied two feet higher than the snow will drift. The trees will turn white after the first rain or snow, but this does not change the effectiveness



Harvesting a Stand of Illahee, the Creeping Red Fescue Grass.

FOR IMMEDIATE SHIPMENT

	Per 100	Per 1000
ILEX OPACA. American Holly.		
12 to 18 ins.	\$ 6.00	\$ 50.00
18 to 24 ins.	9.00	75.00
24 to 30 ins.	20.00	175.00
JUNIPERUS VIRGINIANA. Red Cedar.		
6 to 12 ins.	2.00	15.00
12 to 18 ins.	3.00	25.00
18 to 24 ins.	6.00	50.00
KALMIA LATIFOLIA.		
Mountain Laurel.		
4 to 6 ins.	1.50	12.00
6 to 12 ins.	2.00	15.00
12 to 18 ins.	4.00	35.00
ASIMINA TRILOBA. Papaw.		
18 to 24 ins.	5.00	40.00
2 to 3 ft.	6.00	50.00
CERCIS CANADENSIS. Redbud.		
12 to 18 ins.	2.00	15.00
18 to 24 ins.	2.50	20.00
2 to 3 ft.	4.00	30.00
LIQUIDAMBAR STYRACIFLUA.		
Sweet Gum.		
18 to 24 ins.	3.00	25.00
2 to 3 ft.	5.00	40.00
3 to 4 ft.	8.00	75.00
TILIA AMERICANA. American Linden.		
12 to 18 ins.	5.00	40.00
18 to 24 ins.	6.00	50.00
SYMPHORICARPOS VULGARIS.		
Coralberry.		
12 to 18 ins.	2.50	20.00
18 to 24 ins.	3.00	25.00
VACCINIUM VACILLANS. Blueberry.		
6 to 12 ins.	3.00	25.00
12 to 18 ins.	5.00	40.00
SPIRAEA CALLOSA ROSEA.		
Pink Spirea.		
12 to 18 ins.	2.00	15.00
18 to 24 ins.	3.00	25.00
2 to 3 ft.	5.00	50.00

Free packing and 5 per cent discount if your order reaches us before January 1. We have more help now and can rush your orders right out to you. If interested in items not listed send us your want list.

O. H. PERRY NURSERY CO.Box 545
McMinnville, Tenn.**FOR QUICK SHIPMENT***To nurserymen at wholesale only.*

Shellbark Hickory Nuts, while they last, 200 to 500 lots, 9c per lb. Black Walnuts, hulled and selected seeds, 7c per lb. Redbud, clean seeds, 90c per lb. Cornus Florida (White-flowering Dogwood), cured, 75c per lb. American Persimmon, clean, 75c per lb. Redbud seedlings, 12 to 18 ins., \$15.00 per 1000; 18 to 24 ins., \$20.00 per 1000; 2 to 3 ft., 10c ea.; 3 to 4 ft., 12c ea. Many varieties in lining-out seedlings. Red Cedar seedlings, 6 to 12 ins., \$15.00 per 1000. Tsuga (Hemlock Pine), 6 to 12 ins., \$12.50 per 1000; 25,000 to 50,000 lots, 1c ea. Hall's Japanese Honey-suckle, lining-out, \$150.00 per 25,000.

MORTON BROS.

Tarleton Nurseries

Route 7, McMinnville, Tenn.

**HARDY NATIVE EVERGREENS
TREES and SHRUBS**Collected stock.
Lining-out sizes and seedlings.**R. M. COLE**

Box 37 Charlotte, Vt.

The **CHRYSANTHEMUM CATALOG** you cannot afford to be without.

WONDERLAND NURSERIES
Ellerson, Va.**3000 ABELIA GRANDIFLORA**

For immediate sale.

Sizes: 2 to 3 ft., 3 to 4 ft., 4 to 5 ft.
Sell all or part. Write for quotations.**OZARKS PLANT FARMS, INC.**

Springfield, Mo.

of the repellent nor harm the trees, and it does help to minimize winter injury.

The California experiment station has found a formula for a sulphurized oil with which to paint tree trunks. It calls for a gallon of raw linseed oil and twelve ounces of sulphur heated to 470 degrees Fahrenheit.

An extremely toxic strychnine-poisoned wash has been used with success in Idaho. It consists of strychnine sulphate, laundry starch, glycerine and water.

Still another successful repellent has been developed at the School of Agriculture, Ambler, Pa. Aluminum sulphate, Lux and water are combined to make this paint which can be applied with broom or sprayer. It leaves no residue and is nonpoisonous.

FOR ILLINOIS FORESTS.

More than five million forest tree seedlings will be available for distribution to Illinois landowners for reforestation, erosion control and wild life development plantings by the state division of forestry. This stock cannot be used for ornamental or nursery plantings of any kind.

More than three million of this total are conifer seedlings and include such species as jack, pitch, shortleaf, loblolly and Virginia pine. One and one-half million are hardwood seedlings of black locust, ash, soft maple and Osage orange. Both conifer and hardwood seedlings will be available at \$5 per thousand, F.O.B. state nurseries. A limited amount of white and red pine 4-year transplants are offered at \$10 per thousand, F.O.B. state nurseries.

LEAF BLIGHT OF MAPLE.

Individual trees of hard maple have been observed in various sections of the state of Missouri which show a severe type of leaf blight, differing from that described for anthracnose, reports T. W. Bretz in the Plant Disease Reporter. Necrosis of the tissues of the leaf blades between the veins is extensive and so pronounced that affected trees stand out at a distance because of their brown color. No pathogenic organisms have been found to be associated with this condition, nor is there any peculiarity as to the site in which affected trees are found. Trees immediately adjacent to affected individuals may show no evidence of the trouble. No clue has yet been found which would suggest the probable cause of this condition.

HARDWOOD CUTTINGS

We have over a million hardwood cuttings to offer to the trade this season. These will be cut from 1-year wood, 7 to 8 ins. long and are guaranteed to be satisfactory in every respect. The following list with prices is offered in quantity.

	Per 1000
Amur River Privet	\$4.00
Amur River South Privet	3.00
(Ligustrum Sinense)	3.00
California Privet	3.00
Ibodium Privet	3.50
Ibota Privet	4.00
Cephalanthus occidentalis	3.00
Cornus Stolonifera	3.00
Deutzia Pride of Rochester	3.00
Deutzia Crenata Rosea (double)	3.00
Deutzia Fortunei	3.00
Lonicera Bella Albida	4.00
Lonicera Tatarica Alba	4.00
Celastrus Scandens (fruiting type)	3.00
Lombardy Poplar	3.00
Silver Leaf or White Poplar	3.00
Cutleaf Elder	4.00
Hydrangea Arborescens	5.00
Hydrangea F.G.	5.00
Salix Discolor	4.00
(French Pussy Willow)	4.00
Spiraea Japonica (S. Callosa Rosea)	3.00
Spiraea Vanhouttei	3.00
Philadelphus Coronarius	4.00
Abelia Grandiflora	5.00
Weigela Florabunda	5.00
Weigela Rosea	4.00
Weigela Hendersoni	4.00
Weigela Gigantiflora	4.00
Weigela, mixed pink varieties	3.00
Aronia Arbutifolia	4.00
Salix Babylonica	4.00

No shipment after April 1. No charge for packing when cash in full is sent with order. Orders filled in rotation. If order totals 100,000 a 5 per cent discount is allowed.

EVERGREEN GARDEN NURSERY

McMinnville, Tenn.

MAHALEB SEEDLINGS

Limited supply, No. 1.

BLACK LOCUST SEEDLINGS6 to 12 ins., 12 to 18 ins.,
18 to 24 ins., 2 to 3 ft.
and 3 to 4 ft.**PARADISE ASPARAGUS.**

Jumbo plants.

ROGERS NURSERY

Box 132 Winfield, Kan.

Juniper Grafts Wanted

From pots or field liners for spring 1946 delivery in the following varieties: Scopulorum, Sutherland, Chinensis, Blue Columnar, Hill's Dundee, Virginiana Burki, V. Canadensis, V. Glauca, also Koster Blue Spruce, 10 to 15 ins. Small lots will be accepted.

LODING'S ORNAMENTAL EVERGREENS
Rt. 1, Box 95 Moline, Ill.**SORRY**All liners of **JUNIPER GLAUCA HETZI** are sold.**FAIRVIEW EVERGREEN NURSERIES**
Fairview, Pa.**APPLE SCIONS**

Send us your list of requirements.

GOLDEN EAGLE NURSERY

Golden Eagle, Ill.

In Service and Out

MacROBBIE DISCHARGED.

Leslie S. MacRobbie, of the Oak Park Nurseries, East Patchogue, L. I., N. Y., was discharged as a technical sergeant from the army November 25 at Fort Dix, N. J., and has returned to the home of his parents at Patchogue, L. I.

Mr. MacRobbie was inducted into the army in July, 1942, completed his engineer basic training at Fort Belvoir, Va., and in November of that year shipped overseas with the 334th Engineers.

During the twenty-six months he spent in the Persian gulf command, Mr. MacRobbie supervised the civilian personnel employed by his unit at the towns of Khorramshahr and Khurramabad, Iran. During the peak of the shipment of 750,000 tons of lend-lease supplies along the truck route from the Persian gulf to the Russian Red army fronts, as many as 3,900 native Iranians were engaged in building construction and road maintenance work just at these two service stops along the route. The most difficult of the unusual conditions under which this work was done were desert temperatures of 140 to 150 degrees and the mastering of the Iranian language.

In January, 1945, Mr. MacRobbie's unit was shipped to the European theater, where it was engaged in the reconstruction of the demolished bridges along the famous German Autobahnen (superhighway system) and the construction of Camp Philip Morris, a redeployment staging camp at Le Havre, France.

During his thirty-seven months overseas, Mr. MacRobbie traveled over 30,000 miles, through twelve countries and on ten major seas. He spent seventy-one days aboard six troop transport ships.

Mr. MacRobbie will take up his work as general manager of Oak Park Nurseries at the conclusion of a short rest.

THE same day E. H. Whitten, Douglas, Ala., reported for induction into the navy a tornado destroyed a large part of his nursery. The cleanup is in process, and he hopes to have the Whitten Nursery ready for business soon.

OTTO M. BOSSLER has re-opened the Bossler Nursery, Belleville, Ill., having been discharged from the navy after two years' service.

AFTER four and one-half years in the army, Derwood Johnson, son-in-law of J. P. Foster, of the Holton & Hunkel Nurseries, Milwaukee, Wis., has received his honorable discharge and is joining his father-in-law in the business. Mr. Johnson did camouflage work near New York for three and one-half years and was more recently with the 1290th Engineers in France and Germany.

KENNETH POTTER, brother of Earl M. Potter, who recently opened the Valley Nurseries at West Warwick, R. I., has been discharged from the army and is joining his brother in the business.

JAMES S. CAMPBELL, World War II veteran, is the owner and operator of Campbell's Native Nursery, Franklin, Va. He is specializing in shade trees and shrubs native to the south.

RED RHUBARBS

MacDonald
and
Canada Red

ANDREWS NURSERY CO.
FARIBAULT, MINN.

FRUIT TREES AND SMALL FRUITS

HARRISON BROTHERS NURSERIES

G. Hale Harrison, General Manager
BERLIN, MARYLAND

SMALL FRUIT PLANTS and VEGETABLE ROOTS

We grow for the whole-sale trade only.

KRIEGER'S WHOLESALE NURSERY
Bridgman, Mich.

WALTER COOK, son of P. E. Cook, of the Home Nursery, Liberal, Mo., has returned from Tokyo and was discharged from the army air forces November 3. John E. Cook went through thirteen months of some of the heaviest fighting in the Pacific while on board the U. S. S. Washington. Allen Cook is stationed in Korea with the army.

WILLIAM W. GRAHAM, recently discharged from the army, will operate the Green Mountain Gardens, at Boulder, Colo., and is also buying a 10-acre tract for raising hardy perennials and evergreens at Littleton, Colo.

CARL LADEWIG and his son, Henry, who was recently discharged from the army, have opened the Ladewig Nursery at Grand Rapids, Mich. They expect to specialize in hybrid roses.

EDWARD W. AMBO, of Ambo Bros. Nursery, University City, Mo., has returned to the business after several years in service.

GRAPEVINES, CURRANTS, GOOSEBERRIES and BERRY PLANTS

Can also supply Currant lineouts and cuttings.

Known to the Wholesale Trade for Small Fruit Plants of Superior Quality Since 1890.

F. E. SCHIFFERLI & SON NURSERIES
Fredonia, N. Y.

SMALL FRUIT PLANTS

Offering the trade large quantities of GRAPES, BLACK RASPBERRIES, BLACKBERRIES, DEWBERRIES, BOYSENBERRIES, CURRANTS, RHUBARB, ASPARAGUS and BLUEBERRY Rooted Cuttings.

Write for quotations.

L. J. RAMBO'S WHOLESALE NURSERIES
Bridgman, Mich.

WANTED

FRUIT TREE STOCKS

Apple, Pear, Plum and Cherry

Also Rose Seedlings for budding.

STORRS & HARRISON NURSERIES, INC.
Painesville, Ohio

APPLE AND PEAR GRAFTS

We are now booking orders for Apple and Pear Grafts for shipment Spring 1946. Also will have 50,000 Apple and Pear Scions to offer.

5000 PEACH TREES

18 to 24 ins., 2 to 3 ft.

J. H. Hale, Elberta, Hale Haven, South Haven, Red Haven, Belle of Georgia, Brackett, Rochester, Red Bird, Heath Cling and a few others.

We have a few thousand Apple and Pear Seedlings, No. 1 and No. 2 grades, to offer. Also a few thousand Mahaleb Cherry and Plum Seedlings, in medium grades only.

1 AND 2 YEAR-OLD APPLES

Jonathan, Grimes, Red and Yellow Delicious, McIntosh, Baldwin, Transparent, Rome Beauty, Stayman, York and Winesap.

A few hundred Burbank Plums and Apricots, 18 to 24 ins., 2 to 3 ft. and 3 to 4 ft.

1000 Chinese Elm
1000 American Ash
500 Red Oak, 8 to 10 ft. and
10 to 12 ft.

WANTED

10,000 Bartlett; 5,000 each, Seckel, Duchess and Clapp Favorite Pear Scions.

EGYPTIAN NURSERY CO.

Farina, Ill.

PEACH TREES

14,000 June Buds.

Sizes up to 4 ft.

Priced for immediate sale.

Write for quotations on entire lot.

OZARKS PLANT FARMS INC.

530 S. Kimbrough Ave.
Springfield, Mo.

STRAWBERRY PLANTS

I have 15 acres of nice young plants.

Varieties	Per 100	Per 250	Per 1000
Aroma or Klondike...	\$1.25	\$3.50	\$7.00
Blakemore	1.00	2.25	6.00
Dunlap or Missionary..	1.25	2.50	7.00
Progressive			
Everbearing	1.50	3.25	10.00

Orders filled promptly with freshly dug plants. Write for prices in large quantities.

J. M. RAMSEY

Rt. 1, McDonald, Tenn. Phone: 2421

ASPARAGUS

WASHINGTON and PARADISE

Let us quote on your needs.

COE, CONVERSE & EDWARDS CO.
Fort Atkinson, Wisconsin

SMALL FRUIT PLANTS

Evergreens — Shrubs
Asparagus — Rhubarb
Send for Complete Trade List

W. N. SCARFF'S SONS
New Carlisle, O.

COVER ILLUSTRATION.**Arctostaphylos Uva-ursi.**

Arctostaphylos uva-ursi, the bearberry, is native of Europe, north Asia and along the coasts in North America. It is sometimes found inland in this country along the higher ridges. The bearberry is a low-growing creeping shrub, with small dark green leaves, forming a dense evergreen carpet. The leaves are usually about three-quarters of an inch long, obovate in shape, with somewhat revolute margins.

The small white or pinkish-white flowers are of little ornamental value, but the glossy bright red fruits are attractive when near at hand. The fruits are from a quarter to a third of an inch in diameter.

The bearberry prefers a sandy or gravelly, well drained, slightly acid soil. On a few occasions it has been doing fairly well on nearly neutral soil, provided it was possible to get a good cover established. In the cooler regions, it will do well in either sun or shade, but best in the sun if it can be partially protected during the winter to prevent the foliage from bronzing and sometimes marginal burning. In the warmer, drier regions of the midwest, it does best in at least partial shade and should be provided with ample moisture. In this region, a sandy soil with which peat has been incorporated seems to be to its liking. Where winter foliage burn is extensive, a light covering of leaves will give sufficient protection. Propagation can be accomplished by cuttings, either by softwood cuttings handled in frames during the summer or by mature cuttings handled in the greenhouse during the winter months. Bed-grown or field-grown plants are often slow in becoming reestablished, and because of this, handling plants out of pots is preferable.

While the bearberry will not find so extensive use as some of the more common evergreen ground covers, such as vinca, pachysandra and euonymus, it nevertheless is a good broad-leaved evergreen ground cover. It makes a fine rock garden plant and does well as a general ground cover in small areas. In its native habitat it can be used to cover more extensive areas.

L. C. C.

[Photograph from Arnold Arboretum.]

S. F. HENSON, owner of Henson's Nursery, Buena Park, Cal., has started construction on a building to house his new garden supply store, which will be located at 230 Manchester boulevard, Buena Park.

**60,000
JUNE-BUD PEACH**

18 to 24 inches, 17½c each

15,000 Regular Elberta

10,000 Regular Hiley

10,000 Hale Haven

5,000 Red Haven

10,000 Golden Jubilee

This stock is of good caliber and we can make shipment any time after this date.

We still have a large quantity of Yellow and Double Red Delicious, and Stayman Winesap Apple available in 4 to 5-ft. grade, 25c each.

FARMERS WHOLESALE NURSERY

Paul Patterson, Owner

P. O. Box 65 Smithville, Tenn.

**WHOLESALE SMALL
FRUITS****Raspberries**

Reds	Blacks
St. Regis	Cumberland
Sunrise	New Logan

Dewberries

Blackberries	
Eldorado	Blowers Alfred

Boysenberries

Thorny	Thornless
--------	-----------

CUTLER & DOWNING CO.

Benton Harbor, Michigan

BERRY PLANTS

Our specialty.

Write for descriptive wholesale price list.

CALAPOOIA BERRY FARM & NURSERY
Shedd, Oregon

Grapevines, Currant Roots,
Currant Cuttings and Berry Plants.
Small Fruit Specialists.

WEST HILL NURSERIES

Fredonia, N. Y. Since 1875

WASHINGTON ASPARAGUS ROOTS

1-yr. and 2-yr.

The very best roots we have ever grown. All state inspected. Can furnish in quantity lots. Write for prices.

PAW PAW NURSERIES

Frank Nelson Paw Paw, Mich.

NOTES FROM A NURSERYMAN'S WIFE.

A friend gave the head of the house a bound volume of the *Mayflower* for 1891 to 1893. This must have been one of the earliest garden magazines in the United States. It was edited by John Lewis Childs and published at Floral Park, N. Y. For the two days it took us to leaf through it, we left the here and now and were back in the nineties. We learned about the manettia vine, the Otaheite orange and other novelties of the day; enjoyed the essays and poems and how-to-grow articles, but most fascinating of all we found the letters from correspondents. Percy L. wrote regularly and at length from Lucknow, India. Percy we now know well, thanks to his long letters. Someone wrote from Brisbane, Australia; H. M. Stanley of Dr. Livingstone fame and his associate, Major Jephson, wrote from darkest Africa of their horticultural discoveries. Mrs. Henry Ward Beecher sent in little essays, and there were letters from the Sandwich islands, from Asia Minor, China and the West Indies. Hon. Henry Tilman, a former United States consul at Jerusalem, had some illustrated articles on the flowers and gardens of the Holy Land, and a Duchess Lindhurst of Italy wrote in the typically florid and poetic style of the day. The writer we most enjoyed, however, was E. S. Rand, of Brazil. He had an eye to see and a pen to describe—too well, apparently, as he complained of receiving too many letters from folks wanting to go to Brazil, on most of which he had to pay postage due, and few of which contained stamps for a reply! And this *Mayflower*, "the leading horticultural magazine of the world, with two colored plates in each issue of not less than thirty-two pages," cost 60 cents a year in advance, with a free premium of fifteen beautiful flowering bulbs. Perhaps some readers of the *American Nurseryman* will remember it.

According to the *American Journal of Science*, per the *Reader's Digest*, John Grimshaw Wilkinson, blind botanist, lost his sight when he was 23 years old, but learned to distinguish flowers by touching them with the tip of his tongue. He could name instantly each of 5,000 specimens.

The *Reader's Digest* also tells of a former sultan of Zanzibar, an island off the east coast of Africa,

who decided to destroy every tree on the island which was of no use. In place of each one that was cut down, he planted a tree that was of value for its fruit, its timber or its beauty. As a result one does not buy fruit there, but pays \$1.80 a month to keep the household supplied. So widespread is the growing of spices, especially cloves, that if the wind is blowing off the island, there is a delightful odor of spices for many miles out at sea, long before the island itself is visible.

What has become of the grass-seeded sheets of paper which within ten days were to produce a perfect grass plot?

Kansas City has a Congressional Medal of Honor winner who is planning to build a new home. F. Gordon Willis, an iris fancier of near-by Independence, Mo., wrote to Staff Sergeant Burr as follows:

"The growing of fine irises is my hobby. When well grown they surpass the orchid. I grow several hundred varieties. If any flower deserves to be known as the soldiers' flower, it is the iris; for its leaves are swords, and for centuries soldiers carried the iris plants from place to place and used them in cemeteries to honor the memory of their comrades fallen in battle. A white iris found in old Mexico was not a native of that country, but obviously came from Asia by way of Spain.

"By reason of the hybridizer's

skill, hundreds of varieties available today may be said to be as great improvements over the iris which early explorers brought to Mexico and early settlers imported from Europe, and Asia to America as the modern planes are improvements of the Wright brothers' plane which first flew at Kitty Hawk.

"I commend to you the iris as a grand man's flower, which will repay you for good care. And I will be happy to share with you a part of any or all varieties which I grow, just as soon as you are ready to plant them. They may be planted at almost any time except when the ground is frozen; and if planted early this fall so as to establish good root growth before freezing weather, they should bloom next spring. Clean cultivation will make them thrive, and during the blooming season if you will walk among the irises from daybreak to sunrise, I think they will thrill you as no other flower can. You may have irises blooming for periods of from one week to ten weeks with ordinary care, depending upon the varieties selected; and if you become really enthused you may have them blooming during eight months."

That poetic fancy we learned as children of Jackie Frost painting autumn leaves just isn't so, we now learn. The tree wants to part with its leaves with the least cost to itself; so it begins by withdrawing chlorophyll. This magic substance

2,000,000 STRAWBERRY PLANTS

Blakemore, Missionary, Dunlap, Ambrosia, New Robinson, Aroma, Evermore Everbearing (Minnesota 1166).

Write for quotations on wholesale lots.

MULLINS PLANT FARM

S. E. Mullins, Prop.

410 Brookfield Ave., Chattanooga 4, Tenn.

HORSE-RADISH PLANTS

State inspected.

Selected plants, 6 to 10 ins. long.

3/16-in. root cuttings.

\$1.50 per 100 \$12.50 per 1000

5/16-in. and up.

\$1.75 per 100 \$15.00 per 1000

Less 2 per cent for cash with order.

These are strong, clean healthy plants and shipped to order.

RANDOLPH MARKET NURSERY

808 W. Randolph St., Chicago 7, Ill.

Stock Still Available

We still have available the following stock:

40,000 June-bud Peach, various sizes and varieties.

40,000 Apple, 1-yr., various sizes and varieties.

Strawberries in several varieties.

Cydonia Japonica Rubra, grafted, 18 to 24 ins. and 2 to 3 ft.

Deutzia Pride of Rochester, 18 to 24 ins. and 2 to 3 ft.

Aithaea, 1-yr. and 2-yr., in varieties.

Forsythia, 1-yr. and 2-yr., in varieties.

Red, Pink and White-flowering Peach, various sizes.

Many other items in small quantities.

Write or wire us for quotations.

COUCH BROS. NURSERY CO.

McMinnville, Tenn.

has two coats, one green and one one yellow. All summer the green one hides the yellow one, but in the withdrawing process the green goes first, leaving the bright yellow leaves characteristic of many trees in fall.

While the chlorophyll is manufacturing food for the tree, it incidentally manufactures a by-product called glucoside and other substances for which the tree has no use. When fall comes the tree grows a corky layer between the twig and the base of the leaf stem so that there will be no wound when the leaf falls. This cork door shuts up the glucoside and other products in the leaf, where they oxidize and make the rich reds and browns of the autumn foliage.

* * * * *

In a will filed in a surrogate court, Delmore Francis Miner, who died August 14, asked that a dandelion be planted on his grave. "Just plant a dandelion," the will read. "I like them. They are a harbinger of spring and good weather, and maybe better things."

* * * * *

Next time you are in the Grand Central station at New York city, look at the granite wall above the heads of pedestrians who use the walks on Forty-sixth street. Charles Driscoll reports that there is a decorative border of oak leaves and acorns there which some unknown meticulously carved.

"The leaves curl as naturally as in life. Some of the acorns are in perfect condition, others have dropped their fruit after frost. Where the shells are empty, the carving is almost delicate. In one case there is a semblance of cobweb over the empty shell, as one often sees it in nature. As I paused to pay my silent tribute to that unknown carver of stone, I wondered whether anybody else among all the millions who have passed here was idle enough to look up and consider the work of those skilled hands."

GRAFTED GRAPES SUPERIOR.

Grapes grafted on vigorous rootstocks usually are more productive and vigorous than the same variety propagated by cuttings, according to Dr. George D. Oberle, pomologist at the New York state experiment station, at Geneva.

A shortage of grafted vines and their greater cost have thus far held up the use of grafted grapes on a commercial scale. Results of experiments begun by the station in 1902

PAPER and WOOD LABELS

Printed - Plain - Painted

PRINTED WOOD LABELS—200 of variety or your name and address—3 lines

4"x½"	POT LABELS—Price per M—	5M—4.00	10M—3.75	25M—3.50	50M—3.25
5"x½"	" " " " " "	5M—4.50	10M—4.00	25M—3.75	50M—3.50
6"x½"	" " " " " "	5M—5.00	10M—4.25	25M—4.00	50M—3.75
3½"x½"	TREE LABELS " " " "	5M—4.50	10M—4.00	25M—3.75	50M—3.50

CEDAR EXTRA WIDE WOOD LABELS—Printed 3 lines—Minimum 5M—500 of a kind

5¼"x7½"	5M—5.00	10M—4.50	25M—4.00	50M—3.50
5¼"x1"	5M—5.25	10M—4.75	25M—4.25	50M—3.75

PAPER LABELS—Printed

7"x½"	ROSE LABELS—Multiples of 100 of variety	\$1.75 per 1000
9"x¾"	FRUIT LABELS—Multiples of 100 of variety	\$2.25 per 1000
9"x¾"	WHITE ADVERTISING LABELS—3 lines 1M—3.50	5M—15.00 10M—27.50
9"x¾"	RED "SOLD" LABELS—Your name, address 1M—3.75	5M—16.25 10M—30.00

RUBBER BUDDING AND GRAFTING STRIPS

4"x3/16"	Approximately 1500 to lb.	1 to 9 lbs. \$1.50 lb. 10 to 49 lbs.
6"x3/16"	Approximately 1000 to lb.	\$1.20 lb. 50 to 99 lbs. \$1.00 lb.
5"x3/16"	Approximately 1200 to lb.	100 to 500 lbs. \$.90 lb.

PRICES F.O.B. YOUR DOOR—10% EXTRA EAST OF THE ROCKIES.

5% DISCOUNT ALLOWED IF CHECK COMES WITH THE ORDER ONLY

CARSCALLEN NURSERY LABEL CO.

27 EAST HOLLY STREET

PASADENA 1, CALIFORNIA

Phones SYcamore 3-9181

L. A. Phone RYan 1-6118

SHINGLE TOW

(Baled Cedar Shavings)

Immediate shipment carload lots.

MONARCH SHINGLE CO.

P. O. Box 37 North Portland, Ore.

and carried on since then with variations have been so promising, however, that a new series of tests has now been started involving the use of fifteen to twenty rootstocks on Concord and Niagara grapes. The grafting operation is not difficult, and it is believed that if there is the demand grafted stocks will be obtainable in sufficient quantities.

"European grape growers have been growing their grapes grafted on resistant American rootstocks for almost seventy-five years in order to combat the grape root louse and have observed that many grafted vines grow far more vigorously than on their own roots," says Dr. Oberle. "The increased vigor is generally associated with heavier yields and superior quality of the fruit. It is thought that these responses are caused by the better adaptation of the rootstocks to soil conditions, with more extensive root systems than are common to own-rooted vines."

Grafted vines require more care

Learn LANDSCAPE GARDENING

A thorough interesting and constructive home training for both those who wish to become LANDSCAPERS, DESIGNERS and GARDENERS, and those who wish to learn for their OWN USE AND PLEASURE.

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in pruning and cultivating, as there is more danger of injuring a grafted vine than one that is growing on its own roots. Also, if a grafted vine is injured or frozen back it cannot be renewed by suckers from the roots, as in the case of own-rooted vines. The productive life of vineyards of grafted American grapes is not yet definitely known, but one of the experimental vineyards maintained by the station had continued in good condition for thirty years when it was abandoned to make way for another experiment.

PLASIDO DAVID has sold David's Nursery, 11566 Olympic boulevard, West Los Angeles, Cal., to Yoshia Terakami.

CALIFORNIA NEWS.

The date has not yet been announced for the Christmas party of the Central California Nurserymen's Association which replaces the regularly monthly meeting. This is one of the two meetings which the ladies attend.

Nurserymen who are offering strawberry plants for sale at this time of the year are advised by the state agricultural experts not to recommend setting out the plants in the fall or winter. Reasons given favoring spring planting are the increased disease infection during the wet winter months and the better growth of plants set out later. It is claimed that spring-planted plants will produce more and better berries and will last longer.

H. Clement Meith has resigned as assistant farm adviser of Kern county and is now employed by United Air Lines as perishable traffic representative of the air cargo department. He has been flying from coast to coast in the past few months observing flowers and other perishables in air transit.

Carlo Brissolaro, Lomita Park carnation grower, has brought suit against the Macco Construction Co. and the Morrison-Knudson Co. for damages to his crops and greenhouses. He claims the construction companies built a road to carry crushed rock to the \$20,000,000 San Francisco airport improvements so negligently that great clouds of dust rose from the road and covered the greenhouses causing injury and death to the plants and requiring repainting of the greenhouses.

As of November 1 wage rates on the west coast are reported to be the highest in the United States. Nurserymen who are paying these rates may have some satisfaction in remembering that so much money means more spending for nursery products.

Although California is thought of as a citrus-producing state, the commerce department reports that deciduous fruit shipments for 1945 are expected to be greater than the 8,000 carloads shipped in 1944.

Total agricultural returns in California including greenhouses and nurseries for the first eight months of 1945 were over \$1,000,000,000 and the highest of any state. The United States Department of Agriculture report says the net farm income in 1946 will be about fifteen per cent less than in 1945, but that it will be much higher than any previous year's, except 1945.

A large crop of commercial Easter



Introducing the **NEW STREAMLINER** Everbearing Strawberry
EXCELLENT—Firm shipping berry; rich, radiant red color; full strawberry flavor; good canner and freezer; heavy bearer; excellent aroma; sturdy plant with luxurious green foliage.
Plants are available in four colors or in black and white of the new Streamliner strawberry for use in your catalogs.

Items to offer for
1945-46 Delivery

BERRIES
RASPBERRIES
Cumberland
Cuthbert
New Washington
Willamette
BOYSENBERRIES
YOUNGBERRIES
LOGANBERRIES
NECTARBERRIES
THORNLESS EVERBEARING
BLACKBERRIES
THORNLESS YOUNGBERRIES
THORNLESS BOYSENBERRIES
STRAWBERRIES—October delivery.
Banner
Marshall
Improved Oregon
Narcissa
Brightmore
EVERBEARING STRAWBERRIES
Gem
Mastodon
Rockhill
Streamliner

RICH & SONS NURSERY
Rt. 4, Hillsboro, Ore.



SHERWOOD NURSERY CO.
EVERGREENS - Propagators & Growers
141 S. E. 65th Ave., PORTLAND 16, ORE.

DEL RANCHO FORTUNA

FRUIT TREES
and
GRAPEVINES

P. O. Box 548
McFARLAND, CAL.

CHERRY RED RHUBARB

STRAWBERRIES, RASPBERRIES
BOYSENBERRIES, NECTARBERRIES
other **BERRIES** and **ASPARAGUS**

Write for descriptive wholesale
price list.

BRENTWOOD BERRY GARDENS

140 S. Carmelina Ave.
Los Angeles 24, Cal.

lilies is being harvested in northern California just now. The lilies are produced in all kinds of places from back yards to the largest planting of twenty-three acres. The value of the crop to the growers is expected to be about \$2,000,000.

GRAPEVINES

For winter delivery.
Order now while list is complete.

EUROPEAN TYPE, table varieties.
Thompson Seedless, early, white.
Monukka Seedless, early, black.
Malaga Red, early, large.
Malaga White, midseason, large.
Ribier, large, midseason, blue.
Muscat, large, midseason, white.
Lady Finger, long, midseason, white.
Black Hamburg, midseason, large.
Tokay, large, late, red.
Emperor, late, red.
Black Malvoise, table or wine.

WINE VARIETIES.
Alicante, red.
Golden Chasselas, black.
Mission, black.
Carignane, black.
Grenache, black.
Zinfandel, black.

AMERICAN VARIETIES.
Concord, black.
Delaware, red.
Portland, white.
Niagara, white.
Fredonia, black.
Coco, red.
Also several other varieties.
1 yr., No. 2 2 yr., No. 1
10 for \$1.00 10 for \$1.50
100 for \$9.00 100 for \$13.50
1000 for \$80.00 1000 for \$120.00
Packing free if cash with order.
Pierce and Phylloxera certificate.

GRIMSHAW CITRUS NURSERY
1021 Dublin Blvd., Hayward, Calif.

ESTHER READ DAISIES

rooted divisions for
immediate shipment

\$ 7.50 per 100;
60.00 per 1000.

MANN'S NURSERY
Petaluma, Cal.

1000 Specimen Dwarf Boxwood, 18 to 24 ins.
500 Green Aucubas, 2 to 3 ft.
150 Dwarf Alberta Spruce, 2 to 3 1/2 ft.
50 Juniper Meyer, 3 to 4 ft.
All stock with perfect fiber roots.

F. A. DOERFLER & SONS
Salem, Ore.

California's small-area tomato growers are using cyanide dusting of the foliage to defoliate the plants and hasten maturing of the fruit. This method is used by cotton growers in the state to defoliate the cotton, in order better to use mechani-

cal pickers, which are rather plentiful in this state.

Quick frozen citrus products will be on the market from southern California as soon as an establishment being built for that purpose is in operation.

Nurserymen interested in drainage of land will be interested in the following reasons given for such practice by college authorities. Drainage will convert cold, damp land into warm, mellow, easily tilled soil, make it more retentive of fertilizers and put it into proper physical condition for producing maximum plant growth. It is said the cost of drainage often is returned in one to three years.

Some of the benefits derived from drainage include increased available plant food, encouraged growth of desirable organisms, improved physical condition of the soil, easier cultivation, conservation of moisture in dry seasons, soil temperature rises earlier in the season, enlarged root-growing zone, less need of fertilizers and irrigation, reduced erosion losses, and soil's being made firmer but lighter by rapid removal of excess water.

Tile used for drainage is more expensive than the open ditch for drainage, but the land value often repays the cost of the tile.

Nurserymen should watch with interest the development of applying DDT and pyrethrum as well as other insecticides with the various kinds of bombs developed during the war. These bombs are the only bombs in use that have a peacetime use. They effectively spread spray material in small areas, such as greenhouses and nursery plantings, are cheaper than power-operated spray rigs and in many cases do a better job.

W. B. B.

The W. M. Burton Nursery, Citrus and Grand avenues, Porterville, Cal., has been sold by Rolin Sherman to Mr. and Mrs. W. M. Harrison, formerly of Fillmore. It now is known as the Harrison Nursery. Sterling Daries, son-in-law of the Harrisons, is associated in the business.

LEROY CLEARWATER has opened a nursery at 120 North Eighth street, Santa Paula, Cal. Future plans include hiring a landscape designer and erecting a greenhouse and salesroom.

RALPH E. and LIBBIE N. DAILEY have purchased the Spencer Carvers Nursery, 6201 Vineland, North Hollywood, Cal., from William and Isabelle Spencer.

PORTLAND WHOLESALE NURSERY CO.

306 S. E. 12th AVENUE Avery H. Steinmetz PORTLAND, OREGON

Quality Stock

CONIFERS AND BROAD-LEAVED
EVERGREENS
SHADE AND FLOWERING TREES
FRUIT TREE SEEDLINGS
FRUIT TREES
DECIDUOUS SHRUBS
VINES AND BULBS
PORTLAND ROSES

Birch, European White, 4-yr.,
8 to 10 ft., \$1.00; 10 to 12 ft., \$1.25.
Maple, Norway, 4-yr.,
8 to 10 ft., \$1.25; 10 to 12 ft., \$1.50.
Mountain Ash, European, 3-yr.,
6 to 8 ft., 85¢; 8 to 10 ft., \$1.00.
Oak, Pin. Red and Scarlet, 4-yr.,
6 to 8 ft., \$1.00; 8 to 10 ft., \$1.25.

Combination carloads to Eastern
points early Spring.

Write for our Catalog

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

**GOOD WESTERN-GROWN
NURSERY STOCK**

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees

Grown right and packed right.

Combination carloads to Eastern
distributing points will save you
on freight.

MILTON NURSERY CO.

A. Miller & Sons, Incorporators

MILTON—Since 1878—OREGON

*Growers of a
General Line
of
Nursery Stocks*

Combination carloads to eastern
distributing points at minimum
freight cost.

AS ALWAYS— OREGON'S BEST SOURCE of GOOD ROSES

Our limited crop is reserved for
our regular customers this year.

PETERSON & DERING

*Wholesale Rose Growers
Scappoose, Oregon*

OREGON-GROWN NURSERY STOCK

We have a complete line of shade and
flowering trees, both whips and heavier
branched stock.

Flowering Cherries, Flowering
Crabs, Plums and Locusts,
Norway and Wiers Maples,
Oaks—Chinese Elm—Mountain
Ash—Birch—Hawthorns.

DOTY & DOERNER, INC.

6001 S. W. Capitol Highway
PORTLAND 1, OREGON

NOTICE

Decreased production makes it impos-
sible to book orders for new customers.
For the duration the limited supply is
reserved for our regular trade.

HOWARD ROSE CO.
Hemet, California

BALED SHINGLE TOW

(CEDAR SHAVINGS)

WM. A. JOHNSTON

408 Postal Bldg., Portland 4, Ore.

PACIFIC COAST NURSERY

Specializing in fruit tree seed-
lings since 1914. We also have
Norway and Schwedler Maple,
Chinese Elm, European White Birch,
Cut-leaf Weeping Birch, Paul's
Scarlet Hawthorn and Kwanzan
Flowering Cherry. All 2-yr.-old
stock.

John Holmason, Prop.

2244 N. Skidmore Ct.
Portland 11, Oregon

CLASSIFIED ADS

Five lines, \$1.00,
each additional line 20 cents,
per insertion.

BERRY PLANTS

STRAWBERRY PLANTS, certified by state department of agriculture. Grown on new land. We are now booking orders for spring delivery as follows: Blakemore, \$5.50 per 1000; Ambrosia, Tenn. Supreme, Premier, Dunlap, \$8.50 per 1000; Gem Mastodon, Progressive Everbearing, \$10.00 per 1000; Minn. 1166 (named Evermore), \$15.00 per 1000. 20 per cent deposit assures you plants at the proper time next spring.

ROMINES PLANT FARM, Dayton, Tenn.
EVERBEARING STRAWBERRY PLANTS Gem, Gemata, Minn. 1166 and Streamliner. Have been supplying the trade with good plants for 24 years.
DOLLAR NURSERY, Bloomfield, Ia.

BULBS

TULIPS

	Per 1000	Per 1000
	\$29.00	\$35.00
Clara Butt, pink.....	\$30.00	\$35.00
Kansas, white.....	30.00	35.00
Bleu Almaine, purple.....	30.00	35.00
Fantasy, Parrot, pink.....	30.00	35.00
Bronze Queen, bronze.....	30.00	35.00
Yellow Perfection, bronze.....	30.00	35.00
Mrs. Moon, yellow.....	30.00	35.00
Inglescombe Yellow, yellow.....	30.00	35.00
Inglescombe Pink, pink.....	30.00	35.00
Princess Elizabeth, pink.....	30.00	35.00
Prof. Rauwenhof, red.....	30.00	35.00
Inglescombe Scarlet, red.....	30.00	35.00
William Pitt, red.....	30.00	35.00
Pride of Haarlem, red.....	30.00	35.00
City of Haarlem, red.....	30.00	35.00
Farncombe Sanders, red.....	30.00	35.00
Mixed Tulips.....	25.00	30.00

For immediate shipment.
Guaranteed high quality.
100 of variety at 1000 rate.
GILMORE PLANT & BULB CO., INC.
Julian, N. C.

GROWER'S SPECIAL

The most popular bouquet Glad in our garden.
BUCKEYE BRONZE, a bronzy orange-brown, very beautiful, splendid for florists' work.

10 large, 20 medium, 30 small bulbs, and 200 bulbets, value, \$7.50; trial offer, \$6.50 prepaid. Catalog on request.

CUTLER & VENNARD'S NURSERY
Box 394 Sioux City, Iowa

Offering January shipment of Gladioli, Dahlias, Cannas, Tuberoses and Peonies. Send us your want list or write for a price list.
GILMORE PLANT & BULB CO., Julian, N. C.

Grow more Margaret Fulton, the best florists' Glad. Nice blooms from No. 4 and No. 5 bulbs.

10,000 No. 4, \$18.00 per lot.
10,000 No. 5, \$125.00 per lot.
Another splendid florists' Glad-Gardenia.

10,000 No. 4, \$18.00 per lot.
10,000 No. 5, \$150.00 per lot.
Half lots, same price. Catalog on request.

CUTLER & VENNARD NURSERY
Box 394 Sioux City, Iowa

EVERGREENS

EVERGREEN CUTTINGS	Per 1000
5000 Andorra Juniper.....	\$13.00
5000 Pfitzer's Juniper.....	16.00
5000 Canadian Hemlock.....	13.00
2000 Chinese Or. A.V.D. green.....	13.00
2000 Retinospora plumosa.....	13.00
5000 Am. A.V.D. green.....	11.00

Fresh from fields. Half price foliage removed. Ready to plant. Well packed. Shipped prepaid, now or later.
WHERRY'S NURSERIES, St. Marys, W. Va.

Austrian Pine, 3 to 4 ft., B&B.....\$2.50
Scotch Pine, 3 to 4 ft., B&B.....2.25
Scotch Pine, 4 to 5 ft., B&B.....3.00
Scotch Pine, 5 to 6 ft., B&B.....3.50

Can furnish carload lots.
CAPITOL GARDEN NURSERIES
4200 N. May Ave., Oklahoma City, Okla.

NORWAY RED PINE
300,000 5-yr. transplants; average, 24 ins.; minimum, 18 ins. High-grade stock. Offer at 50 per cent less than market price for large orders placed early for spring shipment. Write or wire **SUNCREST EVERGREEN NURSERIES**, Johnstown, Pa.

We will trade lining-out stock of forest-grown Hemlock, Kalmia, Rhododendron, Fringe-tree, for bulbs, plants, evergreens R.C.
BABER'S PLANT FARM
Box 18 Mabscott, W. Va.

CHRISTMAS TREES
Nursery-grown, 3 ft. to 15 ft.
Black Hills, White, Norway and Colorado Spruce. No shipping.
EVERGREEN NURSERIES, Lowell, Ind.

FRUIT TREES

Ask for our available list of **APPLE TREES**, 5/16-in., 35c; 7/16-in., 40c; 9/16-in., 50c; for 50 trees or more, 17 varieties.
HOME NURSERIES
Liberal, Mo.

GRASS SODS

GRASS SODS delivered anywhere.
LAUREL NURSERY
188-19 Merrick Rd.
Springfield Gardens, L. I., N. Y.

HARDY PLANTS

HARDY CHRYSANTHEMUMS
These listed below are surplus from our stock section, grown for winter propagation. They are husky, clean, and will be shipped with all stolons intact. Quantities in all varieties are extremely limited.
(Less than 25 at the ten rate, 25 and over at the 100 rate.)

Variety	Per 10	Per 100
Algonquin, double yellow dec.....	\$3.00	\$25.00
Crimson Glory, ruby red pompon.....	3.00	25.00
Cydonia, double orange.....	4.00	30.00
mahogany.....	3.00	25.00
Early Wonder, soft pink pompon.....	3.00	25.00
Early Joan Helen, rich garnet.....	4.00	30.00
Eureka, Giant, new orange.....	4.00	35.00
Harbor Light, cream-yellow.....	4.00	35.00
White Jewel, white pompon.....	4.00	35.00
Mrs. Pierre S. DuPont, double peach.....	4.00	30.00
Pale Moon, sulphur-yellow.....	3.00	25.00
Pink Charm, pink duplex.....	3.50	30.00
Polar Ice, bright, double white dec.....	4.00	35.00
Rose Glow, raspberry-rose.....	3.00	25.00
Ryckoff Glory, large double yellow.....	3.00	25.00
Sept. Bronze, red-bronze pompon.....	4.00	30.00
Sept. Cloud, ivory-white pompon.....	4.00	30.00
Sept. Gold, yellow pompon.....	4.00	30.00
Sequoia, mellow amber.....	3.00	25.00
White Knight.....	4.50	40.00

CUSHIONS
Champion, deep strong bronze..... 3.50 30.00
Commander, huge deep red..... 3.50 30.00
De Luxe, red..... 4.00 35.00
E. A. Guest, red pompon-type..... 3.50 30.00
Yellow Supreme, new form XXX..... 4.50 40.00
Marjorie Mills, red-bronze..... 3.50 30.00
Mystery Glory, red Cascade..... 3.50 30.00
Serene, new white..... 4.50 40.00
Santa Claus, burgundy..... 3.00 25.00
All of the above have been properly touched by our conditioning northern lake frosts and are available for immediate delivery while they last.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

PEONIES

3 to 5-eye divisions	Per 100	Per 1000
Baroness Schroeder, white.....	\$50.00	\$450.00
Edulis Superba, pink.....	27.00	250.00
Felix Crousse, red.....	35.00	300.00
Festiva Maxima, white.....	27.00	250.00
Floral Treasure, pink.....	27.00	250.00
Fraxans, red.....	27.00	250.00
Lady Leonora Bramwell, pink.....	27.00	250.00
Modeste Guerin.....	50.00	400.00
Queen Victoria, white.....	27.00	250.00
Sarah Bernhardt, pink.....	50.00	400.00
Peonies according to color.....	25.00	200.00

PHIL LUTZ PEONY FARMS, Boonville, Ind.

HARDY ASTERS

Strong, vigorously developed, 1-year plants, generously suckered and real producers.

	Per 10	Per 100
Blue Gown, finest light blue.....	\$2.25	\$18.00
Climax, showiest blue.....	2.00	15.00
Mount Everest, best white.....	2.00	15.00
Queen Mary, blue tinted orchid.....	2.25	18.00
Red Cloud, vigorous bright red.....	2.50	20.00
Royal Blue, deep blue.....	2.25	18.00
Royal Pink, bright pink.....	2.25	18.00
Sunset, sunset-pink.....	2.25	18.00

THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

FLORISTS' FORCING FUNKIA

VARIETATA

These are now properly frost cured and ready for immediate shipment. Just heel them into any convenient area and pot when required for sale, after ten weeks' forcing period in carnation temperatures. Plants husky, field-grown, and hold 3 to 5 eyes or better. \$2.00 per 10; \$15.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

GAILLARDIAS

Strong, husky, originally field-planted out of pots and now fully mature. Varieties: Burgundy, wine-red; Dazzler, yellow and maroon; Dwarf Goblin, compact yellow and red; Grandiflora Superba, all colors and all summer flowering; Tangerine, orange. All varieties. \$2.00 per 10; \$15.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

HELIANTHUS

Two superb tall, cut flower varieties, flowers of novel form and tremendously popular.
Coronation, double, yellow.....\$2.25 \$18.00
Lodden Gold, double, dahlia-like, yellow.....2.25 18.00
THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

ARTEMISIA

SILVER KING: The bright silver form to cut fresh and dry for winter use. \$2.25 per 10; \$18.00 per 100.
SILVER QUEEN: The huskier type. Our selected species may be dried just as Silver King. \$2.00 per 10; \$15.00 per 100.
THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

MERTENSIA VIRGINICA

The true Virginia Bluebell, hardy northern-grown, 3 to 5 eyes or better. Immediate delivery while they last. \$2.00 per 10, \$15.00 per 100.
THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

HARDY FERNS

Maidenhair (Adiantum Pedatum). Generous northern-grown clumps suitable for forcing or outdoor planting, \$2.00 per 10, \$15.00 per 100.

THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

ACHILLEA BOULE DE NEIGE (Snowball)
Beautifully developed, heavily runnered field clumps of this universally desired, summer-long, hardy, white florists' filler. \$1.75 per 10; \$22.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

PENSTEMON

Pink Beauty, a stalwart 30-in. clean shell-pink, and Garnet, a sparkling red, both fully developed, field-grown, for immediate delivery. \$2.25 per 10; \$18.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

MONARDA

Didyma Cambridge Scarlet and Dahlia-tinted Orchid, either variety at \$2.00 per 10; \$15.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

VIOLETS—Hardy Forcing

Frey's Fragrant.....\$2.00 \$15.00
Princess of Wales.....2.00 15.00

THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

TRITOMA PFITZERI

We have about 1000 strong 1-year field plants to offer this fall. These will flower next year. \$2.00 per 10; \$15.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

EUPATORIUM (Hardy Ageratum)
Lavender-blue, a fine florists' perennial. 1-year, field-grown, \$1.75 per 10, \$12.50 per 100.

THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

OVERSUPPLY OF PEONIES.
Best varieties.
\$15.00 per 100.

Sold by colors only. Red, pink, white.
SUNSET NURSERIES, Sioux City, Ia.

LIATRIS, SEPTEMBER GLORY
Fully mature, positive flowering in next season. \$2.00 per 10; \$15.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

PHLOX SUBULATA ATROPURPUREA
Rich amaranth-red, strong, whole clumps. \$2.00 per 10; \$15.00 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

VIOLA JERSEY GEM
Strong field clumps. \$2.25 per 10; \$17.50 per 100.

THE JOSEPH F. MARTIN CO.
P. O. Box 189 Painesville, Ohio

LILY OF THE VALLEY
Holland strain, generous clumps, \$2.00 per 10, \$15.00 per 100; pip, \$3.00 per 100.

THE JOSEPH F. MARTIN COMPANY
P. O. Box 189, Painesville, Ohio

HARDY DAISIES

Esther Read, div., \$12.50 per 100.
Double White Swan, 2 ins., \$8.00 per 100.
Supreme, giant single, 2 ins., \$12.00 per 100.
STRATFORD GARDENS, Delaware, Ohio

SEEDS

New Crop Seeds
THE DELPHINIUM OF TOMORROW

LYONDEL GIANT HYBRIDS
Massive spikes, stately, majestic, colorful. A new strain especially selected for its large-size flowers and wide range of beautiful colors. Doubles, semidoubles, singles. Extremely hardy. Seeds from plants grown from originator's seeds.
\$.60 per 1/4 oz.; \$11.00 per 1/4 oz.; \$20.00 per oz.
CORLISS BROS., INC., Reynard Street, Gloucester, Mass.

OSAGE ORANGE SEEDS

(Maclura or Bois d'Arc)

My specialty. Get your order in early to insure its being filled.

RAY WICKLIFFE, Seneca, Kansas.

Let us figure with you on your seed requirements in Red Cedar, Osage Orange, Russian Olive, Catalpa, Coffee Bean and other western species.

RIGDON'S TREE SEEDS, Stillwater, Okla.

SHRUBS and TREES

HARDWOOD CUTTINGS

Uniform length, 6 inches.

	Per 1000
Cornus alba sibirica	\$4.00
Cornus amomum	4.00
Cornus paniculata	4.00
Cornus flammula	5.00
Elder, Cutleaf	4.00
Foraythia intermedia	3.00
Foraythia intermedia spectabilis	4.00
Lonicera maackii	4.00
Lonicera bella albidia	3.00
Lonicera bella rosea	4.00
Lonicera morrowii	3.00
Hydrangea A. G.	5.00
Hydrangea P. G.	5.00
Lilac rothomagensis	4.00
Philadelphus grandiflorus	4.00
Philadelphus, Bouquet Blanc	4.00
Physocarpus opulifolius aureus	3.00
Physocarpus opulifolius nanus	4.00
Ligustrum ibota	3.00
Ligustrum, Regel (true)	3.00
Ligustrum, Amur North	3.00
Spiraea billardi rosea	3.00
Spiraea froebelii	3.00
Spiraea trichocarpa	3.00
Spiraea thunbergii	3.00
Spiraea vanhouttei	2.50
Populus, Lombardy	4.00
Willow, Niobe Weeping	4.00
Viburnum, Snowball	4.00
Viburnum dentatum	4.00

SCOTCH GROVE NURSERY

Scotch Grove, Iowa

SHADE TREES

	Per 100
200 Acer, Sugar Maple, 5 to 9 ft., X, heavy, br.	\$80.00
100 Am. Ash, 5 to 6 ft., tr., well br.	40.00
200 Redbud, 3 to 4 ft., br., X	38.00
100 Cornus Florida, White-fl., Dog-wood, 5 to 6 ft., heavy, 2X, well br. Each, \$1.55.	95.00

Early spring delivery.

WHERRY'S NURSERIES, St. Mary's, W. Va.

25,000 Sycamore Trees, also Shrubs, 100,000 8-in. cuttings; 10,000 lbs. Kentucky Coffee Beans, 25c per lb.; Osage Orange, 70c; Sycamore Platanus, 40c; Alliantus, 50c; Regels and Amur River North Privet, 70c; Catalpa, 65c.

SCHROEDER NURSERY CO.

Granite City, Ill.

LINING-OUT STOCK

We have a full assortment of Azaleas and other Broadleaves, Evergreens, Ornamental Shrubs and Trees, also whip-grade Trees. Send for a new list.

THOMAS B. MEEHAN CO.

Dresher, Pa.

	Per 1000
BERBERIS THUNBERGI, 1-yr. seedlings.	
1500 5 to 7 ins.	\$45.00
2000 4 to 5 ins.	35.00
2500 2 to 4 ins.	25.00

JOE'S NURSERY

Maple Ave., Newport, R. I.

ROSA MULTIFLORA JAPONICA SEEDLINGS—Thyrs type, 2 to 4 mm., 4 to 6 mm., 6 to 8 mm. Write for prices stating quantity wanted.

BROWN BROTHERS CO.

Brighton Sta., Rochester 10, N. Y.

Special offer of French Hybrid Lilacs. Specimen stock. Guaranteed true to name. All of the best cut flower varieties. Write for list.

DEERFIELD NURSERIES

Deerfield St. P. O., N. J.

Container-grown CAMELLIAS of Merit. Write for List of the Best from the Far West.

J. S. TORMEY

Torney's Gardens, Temple City, Cal.

Ask prices WAXLEAF LIGUSTRUM, bushy. Tempting prices if you send truck. Sizes up to 4 ft.

WATSON NURSERY, Monticello, Fla.

ROSA JAPONICA MULTIFLORA 4 to 6 mm., \$30.00 per 1000. 2 to 4 mm. (mostly 3 mm.), \$25.00 per 1000. Cash please.

MURMAC NURSERY, 19 Hamlin St., Manchester, Conn.

MISCELLANEOUS

1945 crop PEACH PITS, southern collected. High germination. Small seeds, \$3.50 per bu.; medium, \$2.50 per bu.; large, \$2.00 per bu.; Chinese Arborvitae seeds, \$3.00 per lb. Peach, Plum, Apricot, 1 ft., 20c; 2 ft., 30c; 3 ft., 40c; 4 ft., 60c; 5 ft., 70c; 6 ft., 80c. Seedling peach trees for grafting or budding, \$25.00 per 1000, \$3.00 per 100. Cash with order. Riverdale Nurseries, Riverdale, Ga.

	Per 1000
Latham Raspberries, No. 1	\$50.00
St. Regis Everbearing, No. 1	50.00
Green Ash, 3 to 4 ft.	45.00
Laurel Willow, 2 to 3 ft.	30.00
Golden Willow, 3 to 4 ft.	35.00
Northwest Poplar, 4 to 5 ft., whips	40.00
Washington Asparagus, 2-yr.	20.00
Niagara Hedging, 18 to 24 ins.	40.00
Gem Everbearing Strawberries	17.50

	Per 100
Russian Olive Shrubs, 2 to 3 ft.	\$20.00
Common Lilac, 6 ins.	4.00
Choke Cherries, 4 to 5 ft., X	20.00
Ponderosa Pine, 8 to 12 ins. X	15.00
Juniper Scopulorum, 12 to 18 ins. X	17.50
Juniper Scopulorum, 18 to 24 ins. X	22.50
Black Hill's Spruce, 8 to 12 ins.	17.50
Colorado Spruce, 8 to 12 ins.	17.50

TREADWELL NURSERY CO.

Great Falls, Montana

STRAWBERRY PLANTS, \$3.00 per 1000.

Varieties: Dunlap and Blakemore.

GRAPES, 1-yr., No. 1, at wholesale prices.

	Per 100	Per 1000	Per 10,000
Fredonia	\$11.00	\$100.00	\$900.00
Moore Early	11.00	100.00	900.00
Campbell Early	11.00	100.00	900.00
Delaware	12.00	110.00	1000.00
Niagara	11.00	100.00	900.00
Cynthiana	12.00	110.00	1000.00

1-YR. APPLE WHIPS, at wholesale prices. 2 to 3 ft., 25c ea.; 3 to 4 ft., 35c ea.; 4 to 5 ft., 45c ea. Varieties: Red Delicious, Red Jonathan, Yellow Delicious, Red Stayman, Transparent, Mammoth Black Twig and Ada Red.

THORNLESS YOUNGBERRIES, \$5.00 per 100.

\$45.00 per 1000.

BENTON COUNTY NURSERY CO., INC.

Rogers, Ark.

PEACH, popular varieties, 12 to 18 ins.

15c; 18 to 24 ins., 17c; 24 to 30 ins., 25c; 30 to 36 ins., 35c; 36 to 48 ins., 50c; 4 to 5 ft., 75c; 5 to 7 ft., \$1.00.

ROSES, 2-yr., No. 1, 50c; No. 2, 45c; 1-yr. forced buds, 5c ea. lot. Most standard varieties.

AUSTIN DEWBERRIES, \$12.50 per 1000.

Also Plums, Apples, Figs, Grapes, Blackberries, Youngberries, Boysenberries, Canas, Pecans, Persimmons and many others. Write for list.

FRIOU FLORAL & NURSERY,

Cleburne, Tex.

WILBER and HELEN YEARSLEY, north central states representatives for Hyper-Humus, a cultivated, fertilized and pulverized reed peat, will be at the Hotel La Salle, Chicago, for the Illinois Nurserymen's Convention, and Fort Shelby Hotel, Detroit, for the Michigan Nurserymen's Convention. Hyper-Humus top-dresses the finest, most highly publicized lawns in the east. Cuts transplanting losses to a minimum. Now available on your siding at approx. 70c per 100 lbs. Rapid seller in Detroit at \$3.50 per 100 lbs. One distributor only to a locality.

Surplus Stock

can be easily and quickly turned into

Cash

Listing it in the

American Nurseryman Classified Ads.

DECORATIVES

HARD FLAT CONES, opened like a rose, 2 to 2 1/2 ins., \$2.00 per 100; \$16.00 per 1000. Gum Balls, all with stems, 1 1/2 ins., 1 bu., \$2.50. Assorted Cones, 1 bu., \$2.00. White Pine Cones, 4 to 7 ins., box of 100, \$2.00. Little Spruce Cones, for corages, 1 qt., 45c. Samples of our cones, including postage, per box, \$1.00. MARYLAND NURSERY, Edmonston, Md.

SUPPLIES

WOOD PLANT BANDS.

Used by the largest growers of Carnations, Snaps, Stocks, perennial plants and all plants to be transplanted in the greenhouse or outdoors. Get your supply now, also, for Vegetable plants for resale.

	Size in ins.	Weight	Per 1000	Per 1000
No. M-310	1 1/4 x 1 1/4 x 2 1/4	12 lbs.	\$2.95	
No. M-320	2 x 2 x 2 1/4	15 lbs.	3.30	
No. M-340	2 1/4 x 2 1/4 x 3	20 lbs.	3.75	
No. M-350	3 x 3 x 3	31 lbs.	4.10	
No. M-360	3 1/4 x 3 1/4 x 3 1/4	32 lbs.	4.75	
No. M-391	4 x 4 x 4	40 lbs.	6.60	

Packed 1000 to the carton.

We do not break the carton.

LIGHT WOOD FLATS.

Suitable only for holding and shipping our Wood Plant Bands. Bands are not included at prices below. Per 100 flats

M-370, holds 12 1 1/4-in. bands	\$2.75
M-390, holds 12 2-in. bands	2.30
M-392, holds 12 2 1/4-in. bands	2.75
M-393, holds 6 3-in. bands	2.25
M-394, holds 6 4-in. bands	2.95

Packed 100 to the carton. We do not break cartons.

AMERICAN BULB CO.

1335 W. Randolph St., Chicago 7, Ill.

31-37 W. 27th St., New York 1, N. Y.

GIBRALTAR Frost Covers pay for themselves. Economical, long-lasting, ideal for windbreaks, 6 ft. wide; 50 ft., \$13.75; 100 ft., \$26.00; 150 ft., \$39.00. NEW AMSTERDAM IMPORT, 122 Chambers St., New York 7, N. Y.

BAMBOO CANE STAKES

DYED GREEN—Pencil Thickness

	Contents	Price
	Per Bale	Per Bale
*15 ins.	2000	\$ 7.30
*2 ft.	2000	11.00
*2 1/2 ft.	2000	13.85
*3 ft.	2000	16.65
*3 1/2 ft.	2000	19.50
*4 ft.	2000	22.30
*4 1/2 ft.	2000	24.60

NATURAL COLOR—Medium Heavy

	Contents	Price
	Per Bale	Per Bale
*4 ft.	1000	\$13.00
*4 1/2 ft.	1000	17.00
*5 ft.	500	18.00
*5 1/2 ft.	500	11.50
*6 ft.	100	6.00

NATURAL COLOR—Extra Heavy

	Contents	Price
	Per Bale	Per Bale
*6 ft.	200	\$12.00
*7 ft.	150	12.50
*8 ft.	100	11.00
*8 1/2 ft.	100	8.50

F.O.B. New York and Chicago. Bale lots only.

*These sizes available for prompt shipment from New York.

*These sizes available for prompt shipment from Chicago.

*These sizes available for prompt shipment from both New York and Chicago.

Quantity discounts: 10 bales up, less 6 per cent. 25 bales up, less 7 1/2 per cent.

McHUTCHISON & CO.

95 Chambers St., New York 7, N. Y.

STAKES—Bamboo

Carefully Selected—Dyed Dark Green.

Uniform Pencil Thickness.

	Bale of 2000	Price
No. G-31 3 ft.		\$10.95
No. G-32 3 1/2 ft.		13.90
No. G-33 3 ft.		16.65
No. G-34 3 1/2 ft.		19.45
No. G-35 4 ft.		22.35

TONKIN STAKES—Bamboo

Dyed Green—Medium Heavy.

	Bale of 1000	Price
No. G-41 3 ft.		\$ 9.85
No. G-42 3 1/2 ft.		7.75
No. G-43 4 ft.		8.70
No. G-44 5 ft.		11.95
No. G-45 6 ft.		13.75
No. G-46 7 ft.		7.70

We cannot break bales.

Quantity discounts, 10 to 24 Bales, 5 per cent.

25 Bales or more, 7 1/2 per cent.

SCHUPP SUPPLY CO., Wilmette, Ill.

KNOCK-DOWN FLATS.

Made from a good grade of Southern Yellow Pine, since Cypress is not available.

Standard specifications, inside measurements.

	Price
16x12x3	\$11.35 per 100
16x14x3	14.25 per 100
20x14x3	14.00 per 100
20x14x3	16.25 per 100
22 1/2 x 16 1/2	16.75 per 100
22 1/2 x 18 1/2	18.00 per 100

All other sizes quoted on request. Prices F.O.B. Birmingham.

We are manufacturers, not jobbers. Freight to any point is a small item per Flat. Our

Flats are the best. Why pay more? Our

quality guaranteed. Prompt shipment, any

quantity. Attach check to order.

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Birmingham, Ala.

MEL-LO PEAT

A pure Sedge Peat, weedless, odorless, no inert matter. Contains 2 to 3 1/2 per cent nitrogen, 96 per cent humus; acidity, 5.3 to 5.8. Excellent for seedlings, hardwood and softwood cuttings, transplanting evergreens and shrubs and ideal for top-dressing lawns.

1 to 10 2-bu. bags, f.o.b. \$1.25

11 to 51 2-bu. bags, f.o.b. 1.10

51 to 100 2-bu. bags, f.o.b. 1.00

101 to 500 2-bu. bags, f.o.b. .90

Mel-lo Peat is milled and duffed by a

special process, ready to use. Adopted by the

universities, agricultural colleges, nurseries

and landscape gardeners. Accept no substitutes; demand Mel-lo Peat. Our guarantee,

check with order, prompt shipment. Wire,

phone or write.

MEL-LO PEAT CO. Elyria, Ohio

PROFIT WITH PERF-O-RAIN.

Rain when you want it—low pressure—rectangular strip watered—No overlap—No sprinkler heads or other gadgets—Portable lightweight pipe—Long life. Write for free folder. W. R. AMES COMPANY OF FLORIDA, 2905 E. Broadway, Tampa 5, Florida, or W. R. AMES COMPANY, 150 Hooper St., San Francisco 7, Calif.

NO-NAW will keep rabbits and mice from

killing young trees. \$1 package for 100

trees, lasts over one year; \$3 package for

6-acre orchard; \$5 package of 6 lbs., enough

for 12 acres. We apply each year in November

or December. Saves time and money; paints

on like varnish. Results guaranteed. No

losses in 4 years.

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Letterheads, billheads, statements, cards,

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samples.

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Dept. A, Seaford, Del.

COTTONETTE Squares are best for balling.

Saves time and twine. All sizes in stock.

Write NEW AMSTERDAM IMPORT,

122 Chambers St., New York 7, N. Y.

SUPPLIES—Continued

SOIL HEATING EQUIPMENT.
Designed by a nurseryman and engineer for commercial propagation. Cable, soil thermostat and pilot lamp to heat 20 sq. ft., \$9.70; 40 sq. ft., \$12.10; 60 sq. ft., \$14.50; 80 sq. ft., \$16.90; 150 sq. ft., \$24.30, F.O.B. Seattle. L. N. ROBERSON CO., 1539 E. 103rd St., Seattle 65, Wash.

RUBBER. Your Rubber requirements are important. Know where to get it when you want it. Belts, rubber bands, boots, coats, gloves, hose, spray bulbs, aprons, budding strips. Get our price sheet and catalog today. BROADWAY RUBBER MFG. CO. Louisville 2, Ky.

WINDOW BOXES—GALVANIZED IRON
27 ins., 6¼ deep x 4¼ ins. 46c
Samples, including postage, 60c
MARYLAND NURSERY, Edmonston, Md.

If you don't find what you want
try a Classified Ad
under the heading "Wanted."
It's cheaper than mailing out a want list.

WANTED

PERENNIAL WANT LIST
We are in the market for the following field-grown Perennials for early spring delivery. Please quote us your very best prices. Should you have a surplus in other varieties of Perennials, it might be a good idea to send this list to us with your special quotations.

- 500 Asclepias Tuberosa.
- 1000 Aquilegia, blue shades.
- 1000 Aquilegia, rose shades.
- 1000 Aquilegia, white shades.
- 3000 Carnation Grenadin, King of Blacks.
- 3000 Carnation Grenadin, rose.
- 3000 Carnation Grenadin, white.
- 3000 Carnation Grenadin, yellow.
- 2000 Delphinium, Gold Medal hybrids.
- 2000 Delphinium, Pacific hybrids, mixed.
- 2000 Dicentra Eximia.
- 1500 Gaillardia Burgundy.
- 1500 Gaillardia Dazzler.
- 500 Gaillardia Sun God.
- 1500 Hollyhock, Double purple.
- 2000 Hollyhock, Double pink.
- 2000 Hollyhock, Double red.
- 1500 Hollyhock, Double yellow.
- 2500 Iris Kaempferi, purple and gold.
- 1000 Iris Pumila Dr. Mann, violet.
- 1600 Iris Pumila Dr. Potter, mulberry-purple.
- 1000 Iris Pumila Spring Skies.
- 4000 Lillium Golden Gleam, No. 1 blooming size.
- 2500 Lillium Concelor, No. 1 blooming size.
- 2000 Phlox Subulata Atropurpurea.
- 1500 Phlox Subulata Alba.
- 2500 Phlox Subulata Blue Hill.
- 2000 Phlox Subulata Rosea.
- 1000 Pyrethrum, red.
- 1000 Pyrethrum, rose.
- 500 Stokesia Blue Moon.
- 1000 Stokesia Cyanea, blue.
- 1000 Vinca Minor, Bowles variety.
- 2000 Viola Frey's Fragrant.
- 2000 Viola Robe.
- 2000 Viola Rosina.

MOUNT ARBOR NURSERIES
Shenandoah, Iowa

WANTED

- 3000 Juniper stricta, liners.
 - 1500 Magnolia soulangeana, liners.
 - 3000 Forsythia spectabilis, liners.
 - 1000 Viburnum opulus sterile, liners.
 - 500 Syringa persica (rothomagensis) liners.
 - 1000 Cornus rubra, 18 to 24 ins.
- LEO SCHRAKAMP NURSERIES, 56 to 38
210th St., Bayside, L. I., N. Y.

WANTED

Shrubs for landscaping. All sizes; any quantity. Give details as to location and price. Cash waiting.
Address Box No. 386, care of American Nurseryman.

WANTED

For late fall or early spring delivery, all varieties Grapes, Raspberries, Boysenberry Asparagus and Strawberry plants.
E. W. TOWNSEND & SON, Salisbury, Md.

CLOSING DATE.

Present printing conditions require that more time be given for putting current issues of the American Nurseryman through the press. So if you send material for either the advertising or the news columns of the January 1 issue, please mail in time to reach this office by December 18.

WANT ADS

Help and Situation Wanted and For Sale advertisements.
Display: \$2.50 per inch, each insertion. Liners: 20c line; minimum order \$1.00.

FOR SALE

Greenhouse with retail store near downtown district in live city, Orange county, California. Attractive. Real Value.
Price, \$13,500.00.

E. S. GOODNER
Bank of America Bldg.
Santa Ana, California

NEW YORK FRUIT BREEDING.

Apples as rich in vitamin C as oranges, varieties of all fruits of higher nutritive value and better adapted than existing kinds to freezing preservation and to other modern methods of processing, and new sorts especially suited to home use as well as for commercial production, are some of the objectives of the fruit breeding program at the New York state experiment station at Geneva, said Dr. A. J. Heinicke in addressing members of the New York State Fruit Testing Association at the twenty-seventh annual meeting at the station.

The development of new fruits requires the production of enormous numbers of seedlings, and a population of 1,000 individuals at least from each cross is desired, he said. Numerous generations of different crosses may also be necessary to attain the desired goal. Recent acquisition by Cornell University of a 150-acre farm near Geneva will enable the station fruit breeders to expand the breeding program.

Adverse weather conditions last spring reduced materially the extent of the exhibit of new fruits from the station plantings. Despite this handicap, however, forty-five seedlings and named varieties of apples, eleven of pears, thirty-eight of peaches, thirty-nine of plums and ninety-six of grapes were placed before the fruit testers for appraisal and comparison. Outstanding among the peaches were seedlings from the New Jersey experiment station now under test at Geneva.

Among the ninety-six grape seedlings were twenty-four seedless types developed in cooperation with the New York Botanical Garden. While most of these seedlings lack sufficient hardiness to withstand New York

FOR SALE

San Bernardino's oldest and cleanest complete nursery; est. 1919. 1½ acres in town on main highway. Fully equipped. 3-bedroom home, greenhouse, lath house and other buildings. Large stock camellias and gardenias. Wonderful year-around business. Here is your chance. Price \$25,000.

MOUNT VERNON NURSERY
1957 Mt. Vernon Ave.
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HELP WANTED

Expert tree climbers and tree trimmers. Good wages. References required, and state wages.

Address Box No. 377, care of American Nurseryman, 343 So. Dearborn St., Chicago 4, Ill.

HELP WANTED—Young working foreman with sales ability for well established greenhouse and nursery business in midwest area. Good salary and housing. Give experience and references in first letter.
Address Box No. 386, care of American Nurseryman.

winters, progress is being made in developing hardier strains. In the station's grape breeding work special stress is being put on the development of table grapes with the high quality of the European or California type. Attention is also being directed toward the development of improved wine grapes.

PENNSYLVANIA TESTS DDT.

According to a recent statement by Dr. Thomas L. Guyton, director of Pennsylvania's bureau of plant industry, members of the bureau are studying the effect of DDT sprayed on birds and native insects found in the northeastern section of the state.

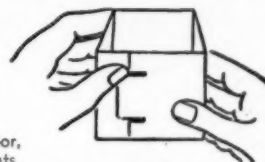
Experiments of the past two years in the 700 square miles of Pennsylvania's gypsy-moth area have proved that this pest can be totally destroyed with as little as one pound

A.F.S. "Easi-Off" WOOD PLANT BANDS



Grow All Your Plants, Seeds and Cuttings This Modern Way

This modern method of culture saves time and labor, and assures the highest yield in cut flowers, potted plants, perennials, nursery stock, etc. Saves losses at transplanting time by avoiding a check to root systems. Buy now for immediate use and for stock on hand.



Removed
without
cutting

SIX SIZES FOR ALL TYPES OF GROWING SIZES AND PRICES

CAT.	Size in inches	Weight per 1000	Per 1000
No. M-310	1 3/4 x 1 3/4 x 2 1/2	12 lbs.	\$2.95
No. M-320	2 x 2 x 2 1/2	15 lbs.	3.30
No. M-340	2 1/2 x 2 1/2 x 3	20 lbs.	3.75
No. M-350	3 x 3 x 3	21 lbs.	4.10
No. M-360	3 x 3 x 4	32 lbs.	4.75
No. M-391	4 x 4 x 4	40 lbs.	5.60

Packed 1000 to the carton

We do not break the cartons.

Easily
assembled

LIGHT-WOOD FLATS FOR ALL-SIZE BANDS

For handling and shipping our 1 3/4-inch and 2-inch sizes of Plant Bands.

Per 100
M-370; holds twelve 1 3/4-inch Bands.....\$2.75
M-390; holds twelve 2-inch Bands.....3.30
M-392; holds twelve 2 1/2-inch Bands.....3.75

Per 100
M-393; holds six 3-inch Bands.....\$3.85
M-394; holds six 4-inch Bands.....3.95
Packed 100 to the carton. We do not break the cartons.

SHIPPED PROMPTLY FROM THE FACTORY IN MICHIGAN

AMERICAN FLORIST SUPPLY CO. CHICAGO 7 1335 W. Randolph St.

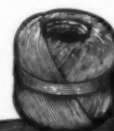
of DDT per acre. To observe the effects on wild life, test plots of up to one square mile each were set aside this year. Some were sprayed by plane at the rate of five pounds of DDT per acre; others at one pound per acre. Unsprayed check plots were provided.

Reports indicate that a single application of DDT under forest conditions continues to kill many insects over a long period, despite rainfall after the DDT is applied. Large-scale use might upset the balance of nature; hence the special surveys, said Dr. Guyton.

Before the test areas were sprayed, the investigators began trapping and identifying various species of insects present. Like examinations were made in the untreated areas. Twenty-four hours after spraying, both areas were inspected and the results were compared to determine what insects and how many the DDT had killed in the treated areas, and the number and different species of insects still present in both the treated and untreated areas. The same process was followed for birds on a 40-acre test plot. Observations will be resumed next spring to determine the ability of such insects to survive

Here's our problem... What do you recommend?

Before the war disrupted supplies of Nursery Twines, such inquiries were meat and drink to us. Too often during the war years it has not been possible to make either an intelligent recommendation or any kind of delivery. Now that supplies are again becoming available, it will be a pleasure to recommend and supply the Twines required for the needs of the greatly expanded postwar Nursery Industry.



"SINCE 1840"

GEO. B. CARPENTER & CO.

AND W. J. KELLY ST. N. CHICAGO 54, ILL.

ROTOTILLER
(Trade Mark Reg. U. S. Pat. Off.)
Does work of 12 men in greenhouses, nurseries. Churns and mixes soil up to 9 inches deep. Write today for full details.

GRAHAM-PAIGE MOTORS CORPORATION
Farm Equipment Division • Detroit 32, Mich.

ARIENS-Tiller
THE MOST COMPLETE LINE OF TILLAGE EQUIPMENT IN THE WORLD CAPACITIES 14 IN. TO 7 FT CUTTING WIDTHS

ARIENS CO.
Box 719 BRILLION, WIS.

the winter in large numbers in sprayed areas. E. F. R.

GORDON CARR, proprietor of the Hutchinson Flower Shop, Hutchinson, Minn., is planning the construction of an extensive greenhouse establishment and a residence on two acres of land east of the city limits. Two greenhouses, 28x80 feet, will use approximately 6,000 feet of glass.

Construction will be started in spring and completed by fall. Mr. and Mrs. Carr were at Chicago recently to visit various florists and inquire about equipment needed for the buildings.

CHET G. MARSHALL, of Marshall's Nurseries, Arlington, Neb., was at Chicago, December 3 to 5, attending a conference of members of state fair boards.

OBITUARY

John L. Hawkins.

John L. Hawkins, proprietor of the Rose Hill Nurseries, St. Paul, Minn., died suddenly from a heart attack November 29, while on a hunting trip in South Dakota, at the age of 70.

He was one of the pioneers of the nursery industry of Minnesota, raised on his father's nursery, which was established in 1874 at the present location. He and a brother took over upon the father's retirement. At the age of 19, John Hawkins purchased his brother's interest and from that time until his death conducted the business as sole proprietor. He was a member of the American Association of Nurserymen, Minnesota State Nurserymen's Association and Twin Cities Nurserymen's Association.

He was a prominent member of the University Baptist church, of Minneapolis, having been treasurer of that congregation for thirty-five years.

He is survived by his widow, two sons, Roy and Charles, a daughter and four grandchildren. Funeral services were held December 4 at Lake-wood chapel. His son, Charles, had just been home on terminal leave after service as lieutenant commander in the navy.

Frank Kuhn.

Frank Kuhn, vice-president of the Coe, Converse & Edwards Co., dealer in nursery items, Fort Atkinson, Wis., died at his home November 16. Mr. Kuhn, 76 years old, had been in failing health for some time. He was born at Chicago and married Helena Thom, Whitewater, Wis., in 1891. She died in 1942. Mr. Kuhn was a member of the National Traveling Men's Association.

He is survived by three sisters and three brothers. Funeral services were conducted November 19 at the Methodist church, with burial in Evergreen cemetery.

Paul Buchmann.

Paul Buchmann, proprietor of the West Side Nurseries, 1425 Brown road, Columbus, O., was shot and killed accidentally while on a hunting trip Thanksgiving day. Mr. Buchmann, 38 years old, was hunting on the farm of Walter Bookwalter, of the Berryhill Nursery Co., Springfield, O., when the accident took place. A 12-year-old boy, shooting at a rabbit, struck Mr. Buchmann just below the heart with his bullet.

The youth was in another party, with his father.

Mr. Buchmann was born at Diersdorf, Germany, going to Columbus in 1930. He established the West Side Nurseries eleven years ago. He was a member of the Germania Club and the Maennerchor.

He is survived by his widow, Mrs. Frances Buchmann, and three children, Hildegard, 10 years old; Martha, 8, and Edna, 4. His parents, three brothers and a sister are yet in Germany.

Mrs. Elizabeth Mosty.

Mrs. Elizabeth Mosty, widow of L. A. Mosty, well known horticulturist, and mother of Lee and Harvey Mosty, owners of the Mosty Bros. Nurseries & Flower Shop, Kerrville, Tex., died November 20. She had celebrated her eighty-fifth birthday September 28 and enjoyed good health until a few weeks before her death. Mrs. Mosty was a native of Lampasas, Tex., and went to Kerrville forty-eight years ago to make her home. She achieved a distinctive place in the cultural and religious life of the community and will long be remembered for her kindness.

In addition to her sons Lee and Harvey Mosty, Mrs. Mosty is survived by three more sons, Mark, Carl and Evelyn Mosty, all of Kerrville; three daughters, Mrs. James Spicer and Mrs. Street Hamilton, Kerrville, and Mrs. Hall Morris, Rocksprings; a half brother, three half sisters, twenty-seven grandchildren and twelve great-grandchildren.

Joseph E. Tansey.

Joseph E. Tansey, horticulturist, exhibitor of prize-winning fruits and flowers and a judge of flower shows, died November 29 at his home at Tuxedo Park, N. Y. He was 61 years old.

In the thirty years that he supervised the gardens and greenhouses on the Tuxedo Park estate of the late Mrs. Henry Morgan Tilford, Mr. Tansey won scores of prizes for her with plants raised under his direction. He developed several new varieties of dahlias, served as judge at all important eastern shows and was a past president of the Gardeners' Association of America.

During the years when the Tuxedo autumn ball officially opened the debutante season, Mr. Tansey was

MYROBALAN SEED LOVELL PEACH PITS

Nation's Leading Source
Write today for quotations.



Mention The American Nurseryman when you write.

Send for Our Seed List.

A. B. C.

"Supreme" Quality
SEEDS — PLANTS — BULBS
and
Growers' Accessories

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1335 W. Randolph St. CHICAGO 7
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LAWN PROBLEMS SOLVED

No Obligation

Experience and tested results from our
8 strategically located Proving Grounds.

F. H. WOODRUFF & Sons, Inc., Milford, Conn. - Toledo, O.

GLADIOLUS BULBS

Why plant No. 1 or No. 2 bulbs when No. 3 and No. 4 will produce nice flowers and a strong No. 1 bulb for the second year? Try out these on the assurance that they will give excellent results.

Priced per 1000—300 same rate.

	No. 3	No. 4	No. 5
Aladdin, salmon	\$25.00	\$20.00	\$15.00
Beacon, scarlet	27.50	22.50	17.00
Gardenia, cream	26.50	22.00	16.00
Peggy Lou, pink	27.50	22.00	16.00
Rapture, pink, 10 per cent			
Maid of Orleans	25.00	20.00	14.00
Snow Princess, white	27.50	22.00	17.00
Marg. Fulton, salmon	25.00	20.00	15.00
Per 10,000	230.00	180.00	135.00
Blaze, red	23.00	18.00	14.00
Bit o' Heaven, orange	25.00	19.00	14.00
Pelegrina, blue	25.00	20.00	15.00
Wings of Song, pink with blue tinge	27.50	22.50	17.00

Subject to stock on hand.
Terms: Cash with order.

VENNARD'S NURSERY

Box 394-F

Sioux City, Ia.

PEACH PITS

THE
Howard-
Hickory
Company

Hickory, N. C.

North Dakota and Montana Seeds

Northern-grown Tree, Shrub
and Wild Flower seeds.
Wholesale crude botanicals.

E. C. MORAN

Stanford, Mont.

many times in charge of the decorations, which sometimes involved creating entire woodland scenes, complete with trees, ferns and stuffed animals, in the Tuxedo Club.

Born at Lenox, Mass., a son of Joseph Tansey, a gardener, Mr. Tansey went to Tuxedo Park forty years ago as head gardener for the late Pierre Lorillard, founder of Tuxedo Park. In 1911 he became estate superintendent for Mr. Tilford, Standard Oil executive. Mr. Tansey continued to occupy his home on the Tilford estate since Mrs. Tilford's death in 1941.

Surviving are his widow, Mrs. Margaret Tansey; a son, Joseph E. Tansey, Jr.; three brothers, John, William and George Tansey, and a sister, Mrs. Charles Ferry. B. J.

John W. Pletcher, Sr.

John Wesley Pletcher, Sr., Glendora, Mich., died at a rest home near Niles November 21. He was 86 years old. He was born at Galion, O., and went to Berrien county, Michigan, sixty-five years ago. Before entering the nursery stock business near Troy, he was a farm machine salesman. He married his second wife, Miss Clara Mow, in 1928.

Survivors include his widow, Mrs. Clara Pletcher; three sons, Clarence and Lloyd, Glendora, and John, Jr., South Bend, Ind.; two daughters, Mrs. Hazel Majewski, South Bend, and Mrs. Daisy Dedic, Spokane, Wash.; eighteen grandchildren, and eleven great-grandchildren.

HEAVY STORM IN EAST.

A prewinter gale lashed northeastern states with rain, sleet and snow for two days as November ended. The storm was so severe as to cause the death of at least thirty-two persons.

The New England coast and upstate New York were hit hardest by the storm, which upset transportation and communication facilities and caused considerable property damage. Seventeen persons were reported dead in New York, eleven in New England and four in New Jersey.

Snow varied in depth from three inches in New York city to thirty inches at Bangor, Me. Railroads reported trains as much as an hour late.

MRS. PEARL GILLIGAN has merged the Beth Mar Nursery with the Saratoga Camellia Nursery, Saratoga, Cal., and has formed a partnership for the operation of the new nursery with her son-in-law, V. R. James.

MAKE MORE PROFIT — KEEP SATISFIED CUSTOMERS

Plan to sell your Roses, Perennials, Shrubs, Vines and Fruit Trees started and growing in



WHICH WOULD YOU PREFER?
WHICH WOULD YOUR CUSTOMER PREFER?

CLOVERSET POTS

Quality stock, potted and growing, will command the **HIGHEST RETAIL PRICES**, will gain the appreciation of your customers for the guarantee of growing success offered. Stock is clean, easy and quick to handle.

Look Ahead — Join the Trend of Times — Modernize Now

Beautifully displayed, potted, growing nursery stock will sell without effort. Offer a plant worthy of a higher price.

CLOVERSET POTS ARE PRICED TO BE A GIVE-AWAY ITEM.

The cost of Cloverset Pots will be amply repaid when highest retail prices can be commanded and good-will gained with dependable, growing stock.

CLOVERSET POTS will help you grow better plants.

Our pots enable you to sell throughout the summer months, even during the hottest weather, without any wilt of either foliage or the bloom, since plants can be moved without disturbing the root system.

Cloverset potted stock will promote planting interest, bringing ease to the gardener, and will increase cash-and-carry trade, making selection of stock easy, quick and a pleasure for your customer. Try our Cloverset Pots; we are sure they will please you.

Write for free circulars and catalog giving description, size and price lists and technical instructions for use. Sample carton, all sizes, standard heavy weight, **25c**. Write today, send your problems, inquiries and requests for information and we will try to assist you from our experience and the experiences of users throughout the country.

No.	Height	Diam. Top	Bottom Diam.	Soil Capacity	Corresponding Weight Size Clay Pot Per 100	— Price —	
						Per 100	Per 1000
0	5 ins.	5 ins.	4½ ins.	3¼ lbs.	6-in. 35 lbs.	\$2.50	\$22.50
1	6½ ins.	6 ins.	5½ ins.	9 lbs.	7-in. 52 lbs.	4.00	35.00
2	9½ ins.	7 ins.	6½ ins.	15 lbs.	8-in. 77 lbs.	4.50	40.00
3	9 ins.	8 ins.	7½ ins.	20 lbs.	9-in. 88 lbs.	5.00	45.00

No. 0 FOR PERENNIALS AND FOR GREENHOUSE USE.
No. 1 FOR PERENNIALS. No. 2 FOR ROSES AND SHRUBS.
No. 3 FOR LARGE SHRUBS AND TRANSPLANTING.

Orders for 300 pots or more take 1,000 pot price. Orders for less than 300 pots take 100 pot price.

CLOVERSET FLOWER FARM

Ernest Haysler & Son

105th Street and Broadway,

Kansas City 5, Missouri

SUDBURY'S SOIL TEST KIT

A must piece of equipment for every nurseryman, florist or farmer, or in fact anyone growing plants in soil.

Excellent as a gift.

Three sizes, each in a sturdy attractive container.

Priced at \$22.50, \$9.75, \$4.75.

SOMERSET ROSE NURSERY, INC.

P. O. Box 608 New Brunswick, N. J.

GENUINE MOSS PEAT

Hydraulic pressed bales and smaller resale packages. Sphagnum Moss, Cultivated Peat Humus.

Shipped from Northern plant at Floodwood, Minn., and Hanlontown, Iowa. Annual capacity 1,000 carloads.

Now booking for present and future deliveries.

Write or wire for quotations.

Colby Pioneer Peat Co., Inc.

Hanlontown, Iowa

PEST PROBLEM IN HAWAII.

In order to obtain the latest information on methods of enforcing agricultural regulations, particularly those in regard to quality standards and inspection procedures, Colin G. Lennox, of Honolulu, president of the Hawaiian Territorial Board of Agriculture and Forestry, has been visiting officials of the California department of agriculture at Sacramento. He previously conferred with officials of the United States bureau of entomology and plant quarantine at Washington, D. C., on the new insect pest quarantine and control problems existing in the territory as the result of channeling nearly all mainland-bound planes, except those returning from Alaska, through Hawaii.

"The airplane has brought Hawaii and the mainland United States so close to the Orient and other Pacific islands that time is no longer a factor in the elimination of stowaway insects which are not necessarily associated with plant material," Mr. Lennox explained. "The inspectors in Hawaii have intercepted hundreds of living insects on planes arriving there and many thousands which have been killed by the present system of spraying planes before landing.

"There have been five new insect pests established in the territory since the war that entomologists believe obtained their entrance as stowaways on planes," he continued. "One of these has reached such a rate of expansion that it offers some concern for agricultural forage crops. It is a geometric moth whose caterpillar feeds on a leguminous shrub valuable to beef cattle.

"This situation has focused our attention on this additional threat, and we now recognize the problem as having two phases: First, to protect Hawaiian agriculture by the prevention of further introduction of pests, and second, to protect mainland agriculture through keeping Hawaii free of pests which may cause damage to temperate zone crops."

Mr. Lennox pointed out that, recognizing this serious threat to mainland and territorial agriculture, the United States Department of Agriculture is planning to augment greatly its plant quarantine inspection service in the islands so that California and the other states can have the assurance that every plane leaving the islands for the mainland is free of insect pests and that planes entering the islands have been cleared of insect pests.

He announced that his board is establishing a division of marketing and

that he has employed Charles Powell, Sacramento, an official of the processed food division of the Department of Agriculture, to be the chief inspector.

DDT USED TO CONTROL BOXWOOD LEAF MINER.

If DDT spray is applied on foliage as soon as the heads of the pupae of the boxwood leaf miner turn brown, excellent control of this pest may be secured, according to report by C. R. Runyan, of the Spring Grove cemetery, Cincinnati, O., in the October issue of the *Arborist's News* on his experiments.

Because the boxwood leaf miner spends its entire life cycle within the leaf, except for a period of a day or two when it emerges as an orange-colored gnat, it is not easy to control where many plants are involved. Mollusc-nicotine spray and fumigation with hydrocyanic acid gas have been used, but only with partial success.

DDT is apparently effective over a period of at least two weeks; so it is an ideal insecticide for the control of the boxwood leaf miner. When the approaching emergence of the gnats is noted (the pupae are in the blisters, a window is formed and the heads of the pupae turn brown) is the opportune time to spray. However where a large area of plants is to be treated, it is better to spray a few days too early. Spraying should be done when the foliage is dry.

In the experiments reported by Mr. Runyan, application was made on a heavily infested hedge April 23, 1945, and because of heavy rains a second light application was made two days later. A strength of two pounds of a twenty per cent wettable dust per 100 gallons of water was used, or 1-2100 on a pure-material basis. The control appeared to be 100 per cent, for over the entire period of emergence, some three weeks, no flies were noticed. A previous population count had showed that ninety-three per cent of the previous year's leaves were infested with as many as fifteen and an average of six and six-tenths larvae per leaf.

An equally heavily infested group of plants was sprayed when the flies were out in large numbers. Within a few minutes after the spraying all flight activity ceased. Some larvae remained on these leaves, but the population had been materially reduced. No flight activity was noted even at the end of two weeks during which time heavy rains had fallen.

The concentrations of the spray were varied after the first 300 gallons

PEARL CHIPS • SHELLS TINSELS—DIAMOND DUST GRANULAR DISPLAY MATERIAL

Used by leading horticulturists, florist supply houses and greenhouses. For dish gardens, rock garden and novelty plants, goldfish bowls, aquariums, etc. Also used by distinctive store and window floor displays to give color and effect to merchandise.

Wood Flakes, Chips, Fibre Glass, Beads, Diamond Dust, Tinsels

(These are also called Glitter)

Prompt shipment.

Manufactured in All Rich Standard Colors

Highly Polished

Fresh Water Pearl Chips

(White or Mixed Colors, size 1/2-in.)

Per lb.	
50-lb. lots	7c
100-lb. lots	5 1/2c
1/2-ton lots	5c
1/2-ton lots	4 1/2c

Highly Polished Fresh Water Sea Shells

Mixed colors only. Size 1 1/4 to 1 1/2-inch.

Per lb.	
10-lb. lots	45c
25-lb. lots	40c
50-lb. lots	35c
100-lb. lots	35c

White Crystal Sand

(Coarse Salt Size)

Any quantity, per lb. 3 1/2c

Crystal Sand

Any standard color, per lb. 7c

Red, Blue, Green, Pink, Orange, Magenta, Chartreuse. 50 lbs. minimum—any individual color.

White Crystal Stones

(No. 2 Grit Size)

Any quantity, per lb. 3c

100 lbs. minimum.

All above items shipped via express or freight.

White Fibre Glass (Fireproof)

(Angel's Hair—Feels like Silk)

Adds beauty and distinction to any display. Good for clouds and wintry effect, floral sprays and baskets.

2 lbs. \$5.00 5 lbs. \$10.00
Also in colors: Blue, Pink, Green, Yellow, at \$1.00 per lb. additional to above prices.

Peat Moss

(Horticultural or Pottery)

\$3.25 per bale—minimum shipment 2 bales.

Crystal Beads, Diamond Dust, Tinsels (Also called Glitter)

20, 30 or 40 Sizes

Glass Tinsels. Give brilliancy, they sparkle, make your products alive with color and light, and can be applied to any surface.

Diamond Dust and Beads. They are transparent, add sparkling beauty and can be sprinkled over any color reflecting the color they cover. Help to promote sales.

All prices per lb.

Silver Tinsels. 5 lbs., 80c; 10 lbs., 67c; 25 lbs., 60c; 50 lbs., 59c. Also in colors (Green, Red, Blue, Gold, Black), 10c per lb. additional to all above prices. Also made in Paisley (mixed colors) at 25c per lb. additional to above Silver Tinsel prices.

Diamond Dust (White only), 20, 30 or 40 sizes. 10 lbs., 48c; 25 lbs., 47c; 50 lbs., 46c; 100 lbs., 44c.

Crystal Beads (White only), 5 and 9 sizes. 5 lbs., 80c; 10 lbs., 60c; 25 lbs., 59c; 50 lbs., 57c.

Minimum shipment of Tinsel in any color is 5 lbs.; Beads, 5 lbs.; Diamond Dust, 10 lbs.

PINE OIL DISINFECTANT (Regular Grade). It's an ideal all-round disinfectant (deodorizes, repellent, disinfects). Good in store, office, factory or home. Prices per gallon: 1 gal., \$2.00;

6 gals., \$1.85; 12 gals., \$1.75. Better grade more powerful.

50c per gallon additional to above prices.

Adhesives (Neutral Color)

For adhering tinsels, diamond dust and pearl chips. Good on pottery, ceramics, wood, cardboard or metals. It is free from acid, sulphur or rubber. 1 gallon, \$3.50; 2 gallons, \$6.00; 5 gallons, \$15.00.

Prompt shipments. F.O.B. Brooklyn. Ship via parcel post, express or freight. State when way preferred.

Catalog furnished.

National Sawdust Co., Inc.

75 North 6th St.

Brooklyn 11, N. Y.

were used. They ranged from three pounds of thirty per cent dust per 100 gallons to as low as one pound per 100 gallons, or approximately 1-1900 to 1-2800 on a pure-material basis. The immediate effects were the same; all flight activity ceased within a few minutes after application.

While there were still some larvae remaining, it was certain that a high degree of control had been obtained. Further experiments are to be made next spring, since DDT is now readily available.

TREATING FENCE POSTS.

Recent announcement of the discovery of a simple procedure for introducing certain chemicals into the sap stream of newly cut wood to protect it against insect attack and decay is attracting widespread attention because of the ease with which fence posts, garden stakes and utility poles can be treated.

Recently the United States Department of Agriculture issued a statement crediting government scientists with development of the simplified method whereby "fresh-cut saplings are allowed to stand in a wooden tub or trough containing the right amount of chemical in solution for about six hours or until they have taken up the required amount of chemical." The statement adds that the principle of introducing chemicals into trees and poles through the sap stream has been known for years, "but until recently the method has not been practicable for use by farmers."

Chemicals recommended are chromated zinc chloride, zinc chloride and copper sulphate (bluestone), "of which the chromated zinc chloride is the best," according to the U. S. D. A. statement, which also points out that "it protects the wood longer and is also less corrosive to wire staples than copper sulphate." The statement continues: "One pound of either of the chemicals dissolved in a half gallon of water will treat a sapling which measures four inches at the base and is about thirty feet tall."

"Best results are obtained when the saplings are treated immediately after cutting from the stumps. When it is not possible to treat them soon after cutting, about one inch should be sawed from the cut end immediately before treating to permit the chemical solution to enter the sap stream."

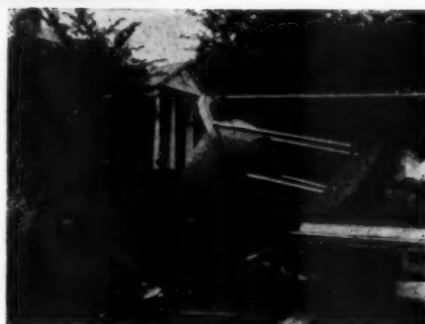
"Many kinds of both hardwood and softwood saplings or trees of a size easily handled can be treated by the sap-stream method. Pine trees are more effectively protected against

AUTOMOTIVE TREE MOVERS



After many years devoted to the development and manufacture of tree movers, Williams & Harvey are again starting to produce the latest model Rocker Type Tree Mover.

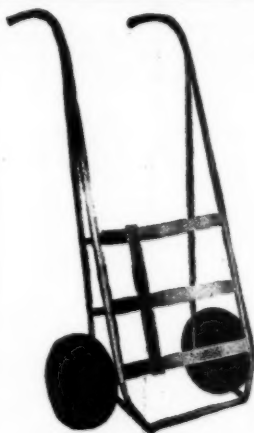
These machines have been thoroughly tested, not only in our nursery, but by others during the war period. The simplicity in the operation of this mover, plus demountable features, cuts the cost of moving big trees. Write for particulars.



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SPECIFICATIONS

Equipped with Jumbo Balloon Tires and Tubes, 12x4 inches.
Specially Designed Curved Nose.
All-steel Construction, electrically welded.
Weight 56 pounds.
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Over-all Width 27 1/2 inches.
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damage by insects and decay than are many hardwoods. The treatment is best applied during the spring and summer, particularly on bright sunny days, when the sap flows most rapidly. Hardwoods can be treated only from early spring to late summer. Pine trees can be treated any time except during freezing weather. Evergreens, treated in winter, require about a day to take up the necessary amount of solution."

INDIANA PROGRAM

[Continued from page 25.]

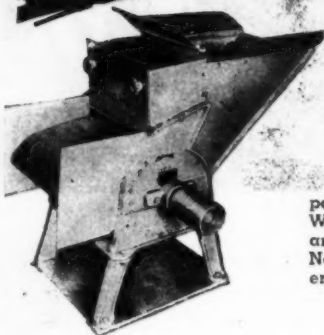
and roses, and Victor Judson, of Judson Wholesale Nurseries, strawberries. "The Storage of Nursery Stock" will be discussed by Robert Hobbs, Clarence Wesdorp, Jess Ireland and a Purdue faculty member. "The Business Outlook for Spring" will be the subject of the final panel discussion in which V. Krider will talk on catalogs; Ollie Hobbs, wholesale nurseries; I. J. Mathews, retail nurseries; M. B. Esterline, landscape nurseries, and R. Schmidt, service.

The evening will be open for nurserymen to visit and discuss their problems.

At 9:30 the following morning the nurserymen will assemble for a shrub identification examination. The winner of the contest will be awarded a prize at luncheon. The first speaker of the day will be R. B. Hull, who will talk on "What Trees and Shrubs I Would Recommend for Indiana Landscape Plantings." Three panel discussions will complete the morning's program. Alvin Kidwell, of Willadean Nurseries; Clarence Wesdorp, of Krider Nurseries, Inc; Howard Gaar, of Gaar Nursery, and a member of the faculty will discuss "Propagating Nursery Stock Including Bedding or Transplanting Stock after Rooting." Fred Hobbs, Merrill Foland, J. C. Bunch and F. J. Littleford will discuss "The Best Method of Transplanting Lining-out and Finished Stock to Fields." M. B. Esterline, of Eagle Creek Nursery; John Moyer, of Laketon Nurseries; Alex Tuschinsky, of Hillsdale Landscape Co.; I. J. Mathews, of Mathews Nursery & Seed Co., and A. B. Morse, of A. B. Morse Co., will talk on "Advertising Nursery Products."

After luncheon the nurserymen will hear Deanette Small, Gary, talk on "Operating a Retail Perennial Business." "Growing Taxus" will be the subject of a talk by Alfred Block, of W. A. Natorp Co.; Lawrence Stum, of Eagle Creek Nursery Co., and J. C. Bunch. "Disease Control and Prevention" will be discussed by Paul Ulman and Purdue faculty members. Dr. Laurence Greene will

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Compost thoroughly mixed in the raw stage preserves its fertilizing properties,rots quicker. Tough materials are the best source of humus. No material is too tough for the W-W. Big capacity on minimum power. Built to stand the shock of iron, rock and tramp material.

FREE Write today for new circular telling how to prepare, store and use compost. Every grower needs this data.

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Dept. F.

Wichita, Kansas

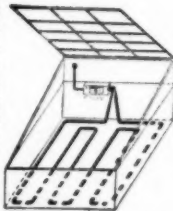
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HEAT CAN'T
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germination,
and fast
growth. Ideal
for plant
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frames. De-
tailed instruc-
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free on re-
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JUNIOR GRO-QUICK with thermostat and
40-ft. 200-watt cable for 3x6-ft. bed. . . \$5.35

SENIOR GRO-QUICK with thermostat and
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JR. CABLE only, \$1.60; **SR. CABLE** only \$3.20

Special 800-watt, 160 ft., 220 volt cable. \$6.40

Prompt delivery. No priority. Prepaid in U.S.A.

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"Tested and Proved" SPRAYERS AND DUSTERS FOR EVERY USE, EVERYWHERE

FOR NURSERYMEN BOOKS FOR Christmas

Crab Apples for America, by Donald Wyman. Discusses breeding, propagation, diseases and insect pests. Suggests best varieties for flowers, fruits and economic purposes. 81 p. (1943)\$1.00

Growing Tree and Small Fruits, by H. B. Knapp and E. C. Auchter. Covers marketing as well as orchard operations. 600 p. (1941) \$2.75

Manual of Cultivated Trees and Shrubs, by Alfred Rehder. Invaluable handbook, completely revised and enlarged. 1000 p. (1940)\$10.50

Cyclopedia of Hardy Fruits, by U. P. Hedrick. Covers the cultivation facts of all varieties of hardy fruits grown in America. 400 p.\$6.00

The Book of Shrubs, by Alfred C. Hottes. Propagation, transplanting, pruning, soil requirements, etc. 370 pages, third edition. (1937) \$3.00

Compiling a New Nursery List, by L. C. Chadwick. 3 booklets. Selections of superior varieties of trees and shrubs in various sizes, vines and ground covers. List uses, culture, growth habits and characteristics for landscape purposes. I. Deciduous plants, 96 p. (1940) II. Narrow-leaved evergreens, 64 p. (1941) III. Broad-leaved evergreens, 64 p. (1941) Each, 40c. Three for.....\$1.00

Tree Experts' Manual, by Richard R. Fenska. Reference book on diagnosis of tree troubles, fertilizing, transplanting, pruning, surgery, diseases, insects, spray materials, etc.—handy information for daily operations of commercial tree expert. 192 p., 65 illus. (1943)\$4.50

The Book of Trees, by A. C. Hottes. Helpful lists for various purposes. Treats transplanting, pruning and propagation. Describes important species. 448 p., 2nd revised edition. (1942) \$3.50

Seeding and Planting in the Practice of Forestry, by James W. Toumey. Third edition revised and enlarged by Clarence F. Korstian. Useful for nurserymen also. 507 p. (1942) ..\$5.00

Handbook of Fertilizers, by A. F. Gustafson. Source, composition, effects and application of commercial fertilizers. 172 p., revised edition (1944)\$1.75

Spray Chemicals and Application Equipment, by J. A. McClintock and Wayne B. Fisher. Describes methods of using spray chemicals. Discusses insects and diseases controlled by the specific chemicals and relates methods of improving present pest control practices. Sprayers and dusters now available are described and about 300 illustrations of this equipment are shown. 300 p. (1945).....\$4.00

[See descriptions of 15 other books in advertisement on on page 41, December 1 issue.]

AMERICAN NURSERYMAN

343 S. Dearborn St., Chicago 4

talk on "What Our Horticulture and Landscape School Offers to Students." A. M. Grube, Lakewood, O., will present an illustrated talk on "Artistic Designing and Planting of Small and Medium-size Homes." In the evening there will be a dinner with music and entertainment and colored movies by Frank Wallace.

An evergreen identification examination will begin the final day's session, and a prize will be awarded the winner at luncheon. I. J. Mathews, Ollie Hobbs and Alex Tuschinsky will talk on "My Advice to Beginners in the Nursery Business." J. C. Bunch and Edward Maschmeyer will talk on "What Shade Trees Are We Going to Grow?" "Developing a Landscape Organization" will be the subject for Harold Hunziker, M. B. Esterline and Alex Tuschinsky, while "Developing a Cash-and-carry Trade" will be handled by I. J. Mathews, Lloyd Pottenger, Deanette Small and E. O. Little, and "Developing a Catalog Business and Mailing List" will be discussed by Vernon Krider. Under the subject of "Business for the Slack Seasons" A. W. Fox, of Fox Nursery, will discuss greens; Frank Turner, of Berryhill Nursery Co., cut trees and greens; Alex Tuschinsky, large tree moving; H. N. Engledow, tree pruning; J. Forbes, greenhouses, and Ben See and F. J. Littleford, cut flowers.

The business meeting and election of officers will be held after a luncheon. Following a discussion of "Current Business Trends, Availability and Type of Labor, and Prices," John Moyer, Edward Maschmeyer and H. Hoffman will conclude the program with a talk on "Operating a Nursery."

KANSAS HORTICULTURAL SOCIETY MEETING.

The seventy-ninth annual meeting of the Kansas State Horticultural Society will be held February 7 and 8 at Kansas State College, Manhattan. A program of prominent speakers is in process of preparation.

PLAN CAMELLIA SHOW.

The camellia show of the Sand Hills Garden Club, Augusta, Ga., will be held Saturday and Sunday, January 26 and 27, 1946. Commercial and amateur growers are invited to take or send their exhibits to the show. Many medals and ribbons will be awarded for specimens, displays and new varieties. For information, write Mrs. George Barrett, Henry street, Augusta, Ga.

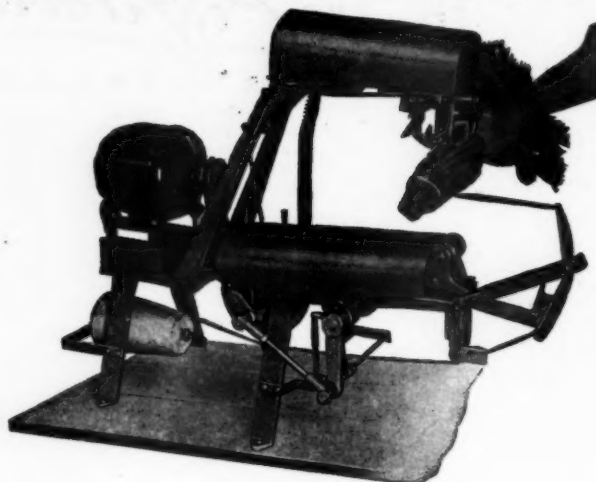
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HOLIDAY GREETINGS

and our best wishes for
the coming year.

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What's the other thing we ought to do this Christmas?

FOR the last four years, the Christmas phrase "Peace on earth, good will to man" has had a pretty hollow, bitter ring.

This year, it won't.

And surely, one thing each of us will want to do this Christmas is to give thanks that peace has finally come to us—both peace and victory.

One other thing we ought to do:

In our giving, this year, let's choose—first—the kind of gift that helped to bring us peace and victory and will now help us to enjoy them.

★

Victory Bonds take care of the men who fought for us—provide money to heal them, to give them a fresh start in the country they saved.

Victory Bonds help to insure a

sound, prosperous country for us all to live and work in.

Victory Bonds mean protection in emergencies — and extra cash for things we want to do ten years from now.

★

Choose—first—the finest gift in all the world, this Christmas.

Give Victory Bonds!

Give the finest gift of all — VICTORY BONDS!

AMERICAN NURSERYMAN

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MINNESOTA MEETING.

[Concluded from page 10.]

St. Anne), Pond's Seedling, Dietz and Krikon. He recommended the Mantet apple and the Worden Seckel pear from observations of them under Minnesota conditions.

Convention Notes.

The banquet Monday evening was marked by the brevity of the hospitable address by John J. McDonough, mayor of St. Paul, and the quality of the floor show. M. R. Cashman acted as toastmaster, and E. H. Hunt led singing.

Sad news of the death of John Hawkins was announced. His obituary appears in this issue.

E. C. Hilborn, of the Northwest Nursery Co., Valley City, N. D., was made an honorary life member of the Minnesota State Horticultural Society at its recent meeting.

T. A. Torgeson, of the Prairie States Nurseries, Ltd., Estevan, Sask., Canada, greeted old friends. In years gone by he was a regular attendant at A. A. N. conventions and at one time president of the Northern Retail Nurserymen's Association.

A. A. N. members met at luncheon December 4 and elected Frank Seifert to serve with K. B. Law and Vincent Bailey as delegates of the Minnesota chapter at the board of governors' meeting at Chicago in January.

ANNE HUNZIKER was born December 2 to Mr. and Mrs. Harold E. Hunziker, Niles, Mich., their second daughter.

THE Smith Tree Service, formerly at Canton, O., is now located on Route 6, North Canton, where F. N. Smith has thirty acres to be planted in lining-out stock.

DR. LOUIS R. BRYANT, formerly at Colorado State College, became professor of horticulture at the State College of Washington, Pullman, last fall. He is a brother of Miles W. Bryant, of Bryant's Nurseries, Princeton, Ill.

A PERMIT has been granted George T. Goodhue to construct a nursery, including a lath house, greenhouse and office, at 121 Chestnut avenue, Fresno, Cal.

MERRILL GOTTFREDSON will open a nursery at South Ninth and East Fourth streets, Springville, Utah, in the spring. Mr. Gottfredson, who has studied the business, has purchased land adjoining his own property at that location and will offer a complete line of stock.

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2-inch and up.....	19.50	185.00

Types Available: Double Camellia, Double Carnation, Double Rosebud, Double Picotee, Double Hanging Basket, Giant Single, Giant Single Frilled, Giant Single Crested and Multiflora.

Colors Available: White, Blush, Pink, Rose, Yellow, Apricot, Orange, Dark Red, Scarlet, Dark Salmon, Cardinal-red, Flame-orange, Light Salmon, Crimson-rose and American Beauty.

CALADIUM

	Per 100	Per 1000
No. 1 Bulbs.....	\$20.00	\$190.00
Jumbo Bulbs.....	28.50	260.00

Less 10 per cent, F.O.B. Florida

Varieties: Candidum, Crimson Wave, Mrs. W. B. Halde-
man, Mrs. Sanders, Mrs. Edith Mead, John Peed and
Lord Derby.

GLOXINIA BULBS

	Per 100	Per 1000
3/4 to 1-inch diameter.....	\$ 9.00	\$ 75.00
1 to 1 1/4-inch diameter.....	14.00	132.50
1 1/4 to 1 1/2-inch diameter.....	18.00	172.50
1 1/2 to 2-inch diameter.....	24.00	232.50
2-inch up.....	30.00	.....

Varieties

Blanche de Meru. Rose. White throat.	Prince Albert. Dark violet. Frilled edge.
Emperor Frederick. Scarlet. White border.	Princess Elizabeth. Blue with white throat.
Emperor William. Violet. White border.	Roi de Rouges. Dark crimson. Frilled edge.
Etoile de Feu. Scarlet.	Tigrinia. Range from light rose to dark lavender.
Mont Blanc. Pure white.	Violacea. Soft violet.

GLADIOLUS BULBS

High-crowned Plump Bulbs. Ideal for Cut Flower Production. Prices per 1000.

	No. 1	No. 2	No. 3	No. 4		No. 1	No. 2	No. 3	No. 4
ALDINE. Shell-pink.....	\$45.00	\$40.00	\$35.00	\$30.00	KING LEAR. New ruffled purple.....	\$50.00	\$42.00	\$35.00	\$28.00
ALGONQUIN. New brilliant red.....	55.00	50.00	45.00	35.00	LEONA. Rosy-red.....	42.00	35.00	30.00	25.00
ALADDIN. Bright salmon, cream blotch.....	50.00	45.00	40.00	30.00	MAID OF ORLEANS. Best creamy-white.....	42.00	35.00	30.00	25.00
BAGDAD. Light red.....	42.00	35.00	30.00	25.00	MARGARET BEATON. White, scarlet throat.....	52.00	45.00	40.00	35.00
BEACON. Salmon-scarlet, cream throat.....	42.00	35.00	30.00	25.00	MARGARET FULTON. Deep salmon.....	42.00	35.00	30.00	25.00
BETTY NUTHALL. Glowing orange-pink.....	42.00	35.00	30.00	25.00	MINUET. Clear lavender.....	42.00	35.00	30.00	25.00
BLACK OPAL. Exhibition black-red.....	.....	65.00	50.00	45.00	MYRNA. Ruffled creamy-white.....	57.50	50.00	40.00	35.00
BLEEDING HEART. Wine-red, light pink blotch.....	42.00	35.00	30.00	25.00	PARADISE. Clear apricot.....	42.00	35.00	30.00	25.00
BONNEVILLE. Ruffled deep salmon-pink.....	42.00	35.00	30.00	25.00	PAUL PFITZER. Tall purple.....	42.00	35.00	30.00	25.00
CARIOCA. Orange-scarlet.....	52.00	45.00	40.00	35.00	PEGGY LOU. Deep pink.....	42.00	35.00	30.00	25.00
CHAMOONY. Light cherry-rose.....	65.00	55.00	45.00	40.00	PELEGRINA. Deep blue-violet.....	42.00	35.00	30.00	25.00
CHAS. DICKENS. Purple-violet.....	42.00	35.00	30.00	25.00	PICARDY. Apricot-pink.....	50.00	42.00	35.00	27.50
DR. F. E. BENNETT. Fiery scarlet-red.....	42.00	35.00	30.00	25.00	RED PHIPPS. Salmon-red.....	42.00	35.00	30.00	25.00
EARLY PEACH. Novelty pink.....	42.00	35.00	30.00	25.00	REWI FALLU. Immense deep blood-red.....	42.00	35.00	30.00	25.00
EARLY ROSE. Rich rose, lighter throat.....	42.00	35.00	30.00	25.00	ROSA VAN LIMA. Light pink.....	42.00	35.00	30.00	25.00
EARLY SUNRISE. Flame-orange.....	50.00	42.00	35.00	28.00	SHIRLEY TEMPLE. Cream, blush-pink throat.....	42.00	35.00	30.00	25.00
GOLDEN CHIMES. Large yellow.....	42.00	35.00	30.00	25.00	TAKINA. Immense rose-line-orchid.....	52.00	45.00	40.00	35.00
GOLDEN CUP. Early gold.....	42.00	35.00	30.00	25.00	TIP-TOP. Large scarlet-red.....	42.00	35.00	30.00	25.00
HERITAGE. Exhibition pink.....	50.00	42.00	35.00	28.00	VIRGINIA. Excellent scarlet.....	42.00	35.00	30.00	25.00
IRAX. Giant tall gray.....	50.00	42.00	35.00	28.00	WURTEMBERGIA. Scarlet-cream throat.....	42.00	35.00	30.00	25.00
KASSEL. Large new scarlet.....	42.00	35.00	30.00	25.00	YELLOW EMPEROR. Fine yellow.....	42.00	35.00	30.00	25.00
KING ARTHUR. Commercial lavender.....	42.00	35.00	30.00	25.00	ZUNI. Ruffled smoky-rose.....	50.00	42.00	35.00	28.00

250 of any one variety at the 1000 rate. On any orders less than 250 of a variety please add 10 per cent to the above prices.

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... and a ...

Happy New Year

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